

## Appendix E

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### **COMPARISON OF SUCTION DREDGE MINING REGULATIONS IN THE UNITED STATES**

Comparison of Suction Dredge Mining Regulations in United States

| State                       | Issuing Agency                                                             | Permit Type/ Applicability                                                                      | Required Disclosures                                                                                                                                                             | Duration of Permit                   | Associated Fees                                                                                                              | Nozzle Limit                                                          | Engine Hp limit | Material Movement limits         | Monitoring/ Reporting                                                                                                                  | Permits Issued                         | Seasonal restrictions                                                                                                                                                                                                                   | Water body restrictions                                                                                                            | Operational restrictions                                                                                                                                                                                                                                                                                                                                                                                                                                          | Other Agency Permissions/ Permits Required                                                                                                                                                                                                                | Document Links                                                                                                                                                                                                                                         |
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| (may have multiple Permits) | (FWS, USACE, State, EPA, etc)                                              | (Discharge, Section 10/404, small-scale, medium-scale, etc)                                     | (notification of work area details - location/duration; name; address; etc)                                                                                                      | (multiple years, single season, etc) | (amount in dollars)                                                                                                          | (in inches)                                                           |                 | (typically given in cubic yards) | (any required agency or self-imposed monitoring or written summary reports required)                                                   | (average if unlimited, or max allowed) |                                                                                                                                                                                                                                         | (permanently closed areas)                                                                                                         | (any other requirements: may include operational hours, densities, use of other equipments, use of hazardous materials, habitat/species avoidance, etc)                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                        |
| CA                          |                                                                            |                                                                                                 |                                                                                                                                                                                  |                                      |                                                                                                                              |                                                                       |                 |                                  |                                                                                                                                        |                                        |                                                                                                                                                                                                                                         |                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                        |
| 1994 Regs                   | CDFG                                                                       | State-wide license                                                                              | Contact information                                                                                                                                                              | Annual basis                         | Resident: \$47<br><br>Non-resident: \$185.25<br><br>Additional costs if on-site inspection fee is needed for special permits | up to 8"                                                              | --              | --                               | none                                                                                                                                   | Varies though generally >3,000         | Yes, based on spawning                                                                                                                                                                                                                  | Yes based on biota (fish)                                                                                                          | <ul style="list-style-type: none"><li>Permit must be kept on hand at all times</li><li>Equipment restriction (hose and nozzle size)</li><li>Winching restrictions</li><li>No operation into banks</li><li>No removal of woody vegetation</li><li>No diversions of flow into banks</li><li>No damming or obstruction of flows that would impede fish passage</li><li>No import of earthen materials</li><li>Compliance with other laws (ie. No trespass)</li></ul> | Can apply for a special permit if operation equipment or locations are not covered by this permit<br><br>Substantially altering the flow, or the bed, bank, or channel, of a river, stream, or lake may require a Lake or Streambed Alteration Agreement. |                                                                                                                                                                                                                                                        |
| 1997 Regs NOT ADOPTED       | CDFG                                                                       | State-wide license                                                                              | Same as 1994                                                                                                                                                                     | Same as 1994                         | Same as 1994                                                                                                                 | Same as 1994, with additional areas open to 8 in nozzle size dredging | Same as 1994    | Same as 1994                     | Same as 1994                                                                                                                           | Same as 1994                           | <ul style="list-style-type: none"><li>Addition of 4 new classes of seasons of use</li><li>Revisions to existing class restrictions (extended or reduced seasonal operation permissions)</li></ul><br>(based on new species information) | Revisions to restricted waterbodies (additional areas closed year –round due to habitat/biota; opening of previously closed areas) | Same as 1994 with the following additions: <ul style="list-style-type: none"><li>No direct disturbance of active redd sites</li><li>Only disassembled suction dredges may be kept within 100 yards of a closed water</li></ul>                                                                                                                                                                                                                                    | General permit applicants may apply for any previously issued special permits if they agree to terms and conditions of that permit.<br><br>Similar Lake or Streambed Alteration Agreement requirement as applicable.                                      |                                                                                                                                                                                                                                                        |
| Nevada                      |                                                                            |                                                                                                 |                                                                                                                                                                                  |                                      |                                                                                                                              |                                                                       |                 |                                  |                                                                                                                                        |                                        |                                                                                                                                                                                                                                         |                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                        |
|                             | Nevada Department of Wildlife                                              | Dredging Permit                                                                                 | <ul style="list-style-type: none"><li>Contact information</li><li>Type and size of equipment to be used</li><li>Site location</li></ul>                                          | Annual basis                         | \$15 (annual fee)                                                                                                            | 4 inches or less                                                      | --              | --                               | None                                                                                                                                   | 17/yr over 5 years                     | Yes, based on spawning                                                                                                                                                                                                                  | Yes based on federally endangered biota (fish). Decided on case by case basis.                                                     | <ul style="list-style-type: none"><li>Permit must be kept on hand at all times</li><li>Must not operate more than 3 separate dredges</li><li>No more than 10 different bodies of water</li><li>Must return substrata removed during dredging to the streambed and restore its original contour as closely as possible</li></ul>                                                                                                                                   |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                        |
| Montana                     |                                                                            |                                                                                                 |                                                                                                                                                                                  |                                      |                                                                                                                              |                                                                       |                 |                                  |                                                                                                                                        |                                        |                                                                                                                                                                                                                                         |                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                        |
|                             | Water Protection Bureau of the Montana Department of Environmental Quality | Montana Pollution Discharge Elimination System Permit (MPDES) - Suction Dredging General Permit | <ul style="list-style-type: none"><li>Contact information</li><li>Activity description</li><li>Site location</li><li>BMP identification</li><li>Frequency and duration</li></ul> |                                      | One time application fees –<br>In state: \$25/ out of state: \$100.<br><br>Annual fees - In state: \$25/ out of state: \$100 | 4 inches or less                                                      | --              | 5 NTUs                           | Self imposed visual turbidity observations and daily record of observations and hours. These records are to be sent in monthly to MDEQ | 25                                     | Restricted to time listed on permit<br><br>Yes, based on spawning                                                                                                                                                                       | Yes based on biota (fish)                                                                                                          | <ul style="list-style-type: none"><li>Permit must be kept on hand at all times.</li><li>No chemical addition for gold/ mineral recovery</li><li>No discharge of floating solids, oil sheen, or visible foam</li><li>No machinery allowed other than dredger</li><li>Employment of precautionary</li></ul>                                                                                                                                                         | <ul style="list-style-type: none"><li>Department of Natural Resources and Conservation (DNRC)</li><li>Local Conservation Districts may require a Section 310 permit</li><li>BLM lands (BLM)</li></ul>                                                     | <a href="http://www.deq.mt.gov/wqinfo/MPDES/SuctionDredge.asp">http://www.deq.mt.gov/wqinfo/MPDES/SuctionDredge.asp</a><br><br><a href="http://www.deq.mt.gov/wqinfo/MPDES/SuctionDredge.pdf">http://www.deq.mt.gov/wqinfo/MPDES/SuctionDredge.pdf</a> |

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| State  | Issuing Agency                                | Permit Type/ Applicability                                                                         | Required Disclosures                                                                                                       | Duration of Permit          | Associated Fees | Nozzle Limit | Engine Hp limit | Material Movement limits | Monitoring/ Reporting | Permits Issued | Seasonal restrictions       | Water body restrictions     | Operational restrictions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Other Agency Permissions/ Permits Required                                                                                                                                                                   | Document Links                                                                                                                                                                                                                                          |
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|        | (MDEQ)                                        |                                                                                                    |                                                                                                                            |                             |                 |              |                 |                          |                       |                |                             |                             | measures to prevent spilled or leaking fuels from entering watercourse.<br><ul style="list-style-type: none"><li>No operation into or undercutting stream banks</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"><li>Forest Service Lands (USFS)</li><li>Portions of the Missouri, Yellowstone and Kootenai Rivers may require Section 10 permits (USACE)</li></ul>                         |                                                                                                                                                                                                                                                         |
| Alaska |                                               |                                                                                                    |                                                                                                                            |                             |                 |              |                 |                          |                       |                |                             |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                              |                                                                                                                                                                                                                                                         |
|        | Alaska Departme nt of Natural Resources / EPA | Discharge permit for small dredge placer miners (Discharge under NPDES general permit AKG 37-500)  | <ul style="list-style-type: none"><li>Contact information</li><li>Site location(s)</li><li>Equipment description</li></ul> | 5 years                     | unknown         | 6 in or less | 18 hp or less   | --                       | --                    | unknown        | Yes                         | Yes                         | <ul style="list-style-type: none"><li>Hose size no greater than 2inches larger than nozzle</li><li>No dredging or disturbance of streambanks</li><li>Operation prohibited within 500 ft of locations where anadromous fish are spawning or eggs are known to exist at that time</li><li>not permitted to operate in any of the National Parks System Units, within one nautical mile of a Steller sea lion rookery or haul out area, designated wetlands, or waters adjacent to areas designated as wild</li><li>No motorized equipment used to move instream obstructions</li><li>No use of wheeled or tracked equipment instream</li><li>No damming or diversions</li><li>Avoidance of dredging concentrated silt and clay</li><li>Use of caution when refueling to prevent spillage into surface or groundwater.</li><li>Clean-up and reporting of any spills</li><li>Restoration of any inadvertent disturbance to streambanks</li><li>Dredging shall not block or restrict public access or adversely impact aquatic species harvested by subsistence users</li><li>No discharge within 330ft of an active bald eagle nesting site</li><li>Dredger must determine stream is not fish bearing if not specified as anadromous fish habitat</li></ul> | Contact federal agencies for dredging in federal mining claims (file NOI with appropriate land manager)<br><br>Alaska Department of Fish and Game permit to dredge in state mining claims (see permit below) |                                                                                                                                                                                                                                                         |
|        | Alaska Departme nt of Natural Resources / EPA | Discharge permit for Medium-dredge placer miners (Discharge under NPDES general permit AKG 37-100) | Same as small dredge permit                                                                                                | Same as small dredge permit | unknown         | 6-10 inches  | none            | --                       | --                    | unknown        | Same as small dredge permit | Same as small dredge permit | Same as small dredge permit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Same as small dredge permit                                                                                                                                                                                  | <a href="http://yosemite.epa.gov/r10/water.nsf/59f3b8c4fc8c923988256b580060f5d9/5ef85024315cb3cd8825688f006a3966!OpenDocument">http://yosemite.epa.gov/r10/water.nsf/59f3b8c4fc8c923988256b580060f5d9/5ef85024315cb3cd8825688f006a3966!OpenDocument</a> |

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| State | Issuing Agency                                      | Permit Type/ Applicability                                                                                                     | Required Disclosures                                                                                                                                                                                                                                  | Duration of Permit           | Associated Fees | Nozzle Limit                                                                    | Engine Hp limit | Material Movement limits | Monitoring/ Reporting | Permits Issued | Seasonal restrictions | Water body restrictions | Operational restrictions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Other Agency Permissions/ Permits Required                                                                                                                                                                                                                                                                                                                                                  | Document Links                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|       | Habitat Division of the Department of Fish and Game | Authorization to operate on state mining claims<br><br>Location specific, (list of authorized stream locations provided)       | <ul style="list-style-type: none"><li>Contact information</li><li>Stream identification</li><li>Equipment description</li><li>Schedule</li><li>Average hours</li></ul>                                                                                | As stipulated in application | No fee          | 6 in or less                                                                    | 18 hp or less   | --                       | --                    | 800 - 1,000    | Yes                   | Yes                     | <ul style="list-style-type: none"><li>Intake nozzle diameter shall be six or less inches in diameter and shall be powered by 18 hp or less engine.</li><li>No damming or diversions are authorized.</li><li>Overland (off-road) vehicle access to the mining area that involves ford crossings of anadromous fish streams is NOT authorized under this Recreational Suction Dredge Permit. An Individual Fish Habitat Permit is required for these ford crossings. Please attach a USGS quad map showing the access route to the mining area, including all stream crossings.</li><li>Streambanks shall not be mined or otherwise disturbed. Dredging is permitted within only the existing wetted perimeter (waterline) in the active stream channel. This stipulation does not apply to suction dredges operating within mine cuts located above the ordinary high water line or disconnected ponds and meander cutoffs.</li><li>Suction dredges shall not be used as hydraulic monitors to wash soils or other materials from above the water surface.</li><li>Winches shall not be used to move instream boulders, logs, and other natural obstructions which provide fish habitat and which are too large to move by hand.</li><li>No wheeled or tracked equipment shall be used instream.</li><li>Removal or disposal of garbage and refuse once operations are complete</li></ul> | This Permit can be accepted by EPA as NOI under Permit AKG-37-5000<br><br>Variations of this permit may be required for dredging in known areas with anadromous or resident fish populations<br><br>Fish habitat permit required in waterbodies designated as important for the spawning, rearing, or migration of anadromous fish or that is used by resident fish as a migratory corridor | <a href="http://www.habitat.adfg.alaska.gov/recsuctiondredge.php">http://www.habitat.adfg.alaska.gov/recsuctiondredge.php</a><br><br><a href="http://www.habitat.adfg.alaska.gov/generalpermits/fbksgendredge.pdf">http://www.habitat.adfg.alaska.gov/generalpermits/fbksgendredge.pdf</a><br><br><a href="http://www.habitat.adfg.alaska.gov/generalpermits/fhpermitapp.pdf">http://www.habitat.adfg.alaska.gov/generalpermits/fhpermitapp.pdf</a> |
|       | USACOE                                              | General Permit 2007-372<br><br>Authorization to suction dredge under a Section 404 permit<br><br>Statewide in waters of the US | None if less than 6 inch nozzle size<br><br>Notification required if nozzle size is greater than 6 in: <ul style="list-style-type: none"><li>Contact information</li><li>Map of locations</li><li>Equipment description</li><li>Estimate of</li></ul> | July 2012                    | --              | Up to 10 inches, though must notify COE if nozzle size is greater than 6 inches | --              | --                       | --                    | --             | Yes                   | Yes                     | <ul style="list-style-type: none"><li>No interference with public's right to free navigation in navigable waters</li><li>Use of safety lights and signals</li><li>Dredged material not placed in a manner that would pose a hazard to navigation</li><li>No disturbance to streambanks</li><li>Allow for free passage of fish</li><li>No discharge within 500ft of fish spawning or eggs/alevins occur during time of operation</li><li>Compliance with NPDES</li><li>No effect to endangered or threatened species</li><li>No operation within ¼ mile of</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Fish habitat permit required in waterbodies designated as important for the spawning, rearing, or migration of anadromous fish or that is used by resident fish as a migratory corridor<br><br>Essential Fish Habitat consultation with NMFS if applicable                                                                                                                                  | <a href="http://yosemite.epa.gov/r10/water.nsf/59f3b8c4fc8c923988256b580060f5d9/5ef85024315cb3cd8825688f006a3966!OpenDocument">http://yosemite.epa.gov/r10/water.nsf/59f3b8c4fc8c923988256b580060f5d9/5ef85024315cb3cd8825688f006a3966!OpenDocument</a><br><br><a href="http://www.habitat.adfg.alaska.gov/generalpermits/fhpermitapp.pdf">http://www.habitat.adfg.alaska.gov/generalpermits/fhpermitapp.pdf</a> )                                  |

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| State   | Issuing Agency                   | Permit Type/ Applicability                                                                       | Required Disclosures                                                                                  | Duration of Permit        | Associated Fees | Nozzle Limit        | Engine Hp limit | Material Movement limits | Monitoring/ Reporting | Permits Issued | Seasonal restrictions      | Water body restrictions        | Operational restrictions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Other Agency Permissions/ Permits Required                                                                             | Document Links                                                                                              |
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|         |                                  |                                                                                                  | quantity of processed material                                                                        |                           |                 |                     |                 |                          |                       |                |                            |                                | <div>an active eagle nest</div> <ul style="list-style-type: none"><li>Notification if historic or archeologic site is discovered</li><li>No operation within one nautical mile of Stellar sea lion rookeries or haulouts</li><li>No operation within 500 ft of municipal water supplies</li><li>Equipment cleaning to be conducted upland</li><li>Maintain 1,000ft buffer from actively fishing vessels or set net sites</li><li>Restore tailings, rocks, and disturbed sediment to original water bed contours.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Consultation with DFG re: Section 7 if applicable                                                                      |                                                                                                             |
| Wash.   |                                  |                                                                                                  |                                                                                                       |                           |                 |                     |                 |                          |                       |                |                            |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                        |                                                                                                             |
|         | Departme nt of Fish and Wildlife | Hydraulic Permit Approval- Gold and Fish Pamphlet<br><br>Applicable to listed waters in pamphlet | No application required                                                                               | NA                        | NA              | Up to 4 in diameter | --              | --                       | NA                    | NA             | Yes                        | Yes                            | <div>Numerous (See pamphlet)</div> <ul style="list-style-type: none"><li>Screened fish intake/fish guards</li><li>Petroleum or other harmful materials shall not enter the waters</li><li>Aggregate collected and processed 200+ft from OHWM</li><li>Operations between hours of 5am and 11pm</li><li>Maximum of 5 adult individuals per site</li><li>Sites spaced at least 200ft apart</li><li>No disturbance of woody materials</li><li>Limited movement of boulders</li><li>No deposit of tailings into existing pools</li><li>Tailings returned to location where aggregate was collected</li><li>No damming or diversion of flowing stream</li><li>No disturbance of fish eggs or fry, or mussels</li><li>No blockage or hindrance of fish passage</li><li>No motorized or tracked/wheeled vehicles allowed below OHWM</li><li>No mercury or hazardous materials used at the jobsite to amalgamate minerals</li><li>Return job site to pre-project conditions (restoration/revegetation/ filling and leveling of pits potholes tailing piles)</li></ul> | Written HPA required if activity is not covered in pamphlet, and may include additional permits from NMFS and/or USFWS | <a href="http://wdfw.wa.gov/habitat/goldfish/">http://wdfw.wa.gov/habitat/goldfish/</a>                     |
| Wyoming |                                  |                                                                                                  |                                                                                                       |                           |                 |                     |                 |                          |                       |                |                            |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                        |                                                                                                             |
|         | Departme nt of Environme ntal    | Non-commercial recreational gold searching – Letter of                                           | <ul style="list-style-type: none"><li>Contact information</li><li>Site location description</li></ul> | One field season (annual) |                 | 3 inches or less    | 10 hp or less   |                          |                       | 20 - 30        | Yes based on fish spawning | Yes, based on numerous factors | <ul style="list-style-type: none"><li>Permit must be kept on hand at all times.</li><li>No operation or disturbance of streambanks shore line</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Permit and bonding if commercial or using non-conforming                                                               | <a href="http://www.golddredger.com/forms/Wyoming19.pdf">http://www.golddredger.com/forms/Wyoming19.pdf</a> |

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|       | Quality                        | Authorization<br><br>Location specific                                                                                  | and map <ul style="list-style-type: none"><li>Equipment description</li><li>Schedule</li><li>Guideline agreement</li><li>Land owner permission agreement</li></ul> |                    |                                          |                  |                 |                          |                       |                |                       |                         | vegetation wetlands beaver ponds or in silt or clay materials <ul style="list-style-type: none"><li>No import of materials</li><li>Refueling and servicing away from streams</li><li>Dredging and camps sites to be cleared of litter and debris</li><li>Turbidity must settle or dissipate within 50 ft downstream</li><li>No high banking if disturbance is more than minor</li><li>No use of machines or explosives to move instream obstructions</li><li>No damming or diversions</li><li>No ford crossings of protected waters</li><li>No operation within 500 ft of a developed campground</li><li>No use of mercury or other processing extractive chemicals</li><li>No sites located within 100 ft of a bridge support or near enough to interfere with existing habitat improvement structure, stream channel improvements, gauging stations or diversions</li><li>No other tracked or wheeled mechanized equipment</li></ul> | equipment                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Idaho |                                |                                                                                                                         |                                                                                                                                                                    |                    |                                          |                  |                 |                          |                       |                |                       |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|       | Departme nt of Water Resources | Stream Channel Alteration Permit – Individual Recreational Suction Dredging Application (form 3804-A)<br><br>State wide | <ul style="list-style-type: none"><li>Contact information</li><li>Equipment description</li></ul>                                                                  | Annual             | Residents \$10<br><br>Non-residents \$30 | 5 inches or less | 15 hp or less   | 2cy per hour             | --                    | Unknown        | Yes                   | Yes                     | <ul style="list-style-type: none"><li>Limit to 45 days of operation per calendar year</li><li>Retain stream's general configuration – remove all tailing piles, replace depressions, return disturbed areas to original configuration</li><li>Chemical or petroleum should be stored securely and at least 100 ft away from MHWM if not in an approved safety container</li><li>No disturbance or undercutting of stream banks</li><li>No hydraulic mining of any type or introduction of material from outside of streambank</li><li>No damming of stream channels</li><li>Boulders moved during operation must be replaced in original location</li><li>No deposition of discharge material that redirects the direction of flow</li></ul>                                                                                                                                                                                           | Permit using application Form 3804 –B when using equipment outside this range<br><br>Special supplement permit required for certain areas<br><br>If using equipment with a nozzle size greater than 8 inches, a permit is required from the Idaho Department of Lands<br><br>An NOI and or/Operating plans may be required when mining on Federal Lands (BLM USFS)<br><br>May also require a discharge permit from USEPA – currently creating a | <a href="http://www.idl.idaho.gov/Bureau/Minerals/dr edge_placer/dp_index.htm#rec">http://www.idl.idaho.gov/Bureau/Minerals/dr edge_placer/dp_index.htm#rec</a><br><br><a href="http://www.fs.fed.us/ipnf/recreactivities/minerals/recminerals.pdf">http://www.fs.fed.us/ipnf/recreactivities/minerals/recminerals.pdf</a><br><br><a href="http://yosemite.epa.gov/r10/EOCOMM.NSF/0/74d70c3512661df988257402006d039a/\$FILE/Suction%20Dredging%20FAQ%20final.pdf">http://yosemite.epa.gov/r10/EOCOMM.NSF/0/74d70c3512661df988257402006d039a/\$FILE/Suction%20Dredging%20FAQ%20final.pdf</a> |

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| State     | Issuing Agency                                    | Permit Type/ Applicability                                                                            | Required Disclosures                                                                                                                                                                                             | Duration of Permit                                      | Associated Fees | Nozzle Limit     | Engine Hp limit | Material Movement limits                                                 | Monitoring/ Reporting                                                                                                                                                                                                                                              | Permits Issued | Seasonal restrictions | Water body restrictions | Operational restrictions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Other Agency Permissions/ Permits Required                                                                            | Document Links                                                                                                                                                                                                             |
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|           |                                                   |                                                                                                       |                                                                                                                                                                                                                  |                                                         |                 |                  |                 |                                                                          |                                                                                                                                                                                                                                                                    |                |                       |                         | <ul style="list-style-type: none"><li>No dredging within 100ft of the mouth of a tributary or fish bearing stream</li><li>Equipment shall comply with noise regulations (modified to reduce noise). Non-modified engines shall not be operated within 1,000 ft of developed areas.</li><li>No operation withn 200 ft of boat ramps</li><li>No operation within 500 ft upstream/200ft downstream of stream gauging station</li><li>No operation within 500 ft of a developed campground</li><li>One site per 100 linear ft</li><li>No operation on gravel bars at tails of pools</li><li>No discharge of fine sediments onto gravel bars</li><li>Recognize and avoid spawning areas</li></ul> | suction dredge activities using 5 in or less nozzles                                                                  |                                                                                                                                                                                                                            |
| Oregon    |                                                   |                                                                                                       |                                                                                                                                                                                                                  |                                                         |                 |                  |                 |                                                                          |                                                                                                                                                                                                                                                                    |                |                       |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                            |
|           | Departme nt of environme ntal Quality             | Discharge Permit – 700 PM General Permit for In stream Small Scale Suction Dredging<br><br>State wide | <ul style="list-style-type: none"><li>Contact information</li><li>Equipment description</li></ul>                                                                                                                | Continual until June 30, 2010                           | \$25 annual fee | 6 inches or less | 30 hp or less   | 50 cy per year in any water way (may require additional permitting)      | Visual monitor of turbidity for hoses with 4+ inches of diameter                                                                                                                                                                                                   | unknown        | Yes                   | Yes                     | <ul style="list-style-type: none"><li>One dredge at a time</li><li>No highbanking</li><li>No stream bank dredging</li><li>Limited gravel bar</li><li>Turbidity discharge limitation for dredges with 4+ inches in diameter</li><li>Operation during daylight hours only</li><li>No harassment of fish</li><li>No removal of boulders or natural stream infrastructure from the stream entirely</li><li>No dam construction</li><li>Prevention of spills and leaks by maintaining equipment and use of spill protection or spill prove spouts</li><li>Fuel storage in impermeable containers and 25ft from perimeter of stream</li></ul>                                                      | General Authorization or Removal/Fill Permit required for mining within essential salmon habitat                      | <a href="http://www.deq.state.or.us/WQ/wqpermit/mining.htm">http://www.deq.state.or.us/WQ/wqpermit/mining.htm</a>                                                                                                          |
| S. Dakota |                                                   |                                                                                                       |                                                                                                                                                                                                                  |                                                         |                 |                  |                 |                                                                          |                                                                                                                                                                                                                                                                    |                |                       |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                       |                                                                                                                                                                                                                            |
|           | Departme nt of Environme nt and Natural Resources | Small Scale Mining Permit<br><br>location specific                                                    | <ul style="list-style-type: none"><li>Contact information</li><li>Activity description</li><li>Site location</li><li>Starting/End dates and days per year</li><li>Estimate of acres disturbed per year</li></ul> | Typically 5 yrs at single location, but can be extended | \$100           | --               | --              | Affecting less than 10 acres and removing less than 25,000 tons per year | Wildlife survey to be completed prior to issuance<br>Annual report to be submitted, and should include the following info: <ul style="list-style-type: none"><li>Total acres affected since the permit was issued;</li><li>Acres affected since the last</li></ul> | unknown        | --                    | --                      | Application must include the following components: <ul style="list-style-type: none"><li>Narrative description of operations</li><li>Narrative description of compliance with operation and reclamation requirements of statutes and regulations including:<ul style="list-style-type: none"><li>Grading</li><li>Refuse Disposal</li><li>Revegetation</li></ul></li></ul>                                                                                                                                                                                                                                                                                                                    | May obtain large-scale permit (greater than 10 acres and 25,000 tons and uses chemical or biological leaching agents) | <a href="http://denr.sd.gov/des/mm/smallscaleform.s.aspx">http://denr.sd.gov/des/mm/smallscaleform.s.aspx</a><br><br><a href="http://denr.sd.gov/des/mm/minepermits.a.spx">http://denr.sd.gov/des/mm/minepermits.a.spx</a> |

Comparison of Suction Dredge Mining Regulations in United States

| State | Issuing Agency | Permit Type/ Applicability | Required Disclosures                                                                                  | Duration of Permit | Associated Fees | Nozzle Limit | Engine Hp limit | Material Movement limits | Monitoring/ Reporting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Permits Issued | Seasonal restrictions | Water body restrictions | Operational restrictions                                                                                                                                                                                                                                                            | Other Agency Permissions/ Permits Required | Document Links |
|-------|----------------|----------------------------|-------------------------------------------------------------------------------------------------------|--------------------|-----------------|--------------|-----------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------|
|       |                |                            | <ul style="list-style-type: none"><li>• BMP identification</li><li>• Frequency and duration</li></ul> |                    |                 |              |                 |                          | <div>anniversary date;</div> <ul style="list-style-type: none"><li>• Surface mining land disturbed since the permit was issued;</li><li>• Surface mining land disturbed since the last anniversary date;</li><li>• Total acres reclaimed since the permit was issued;</li><li>• Acres reclaimed since the last anniversary date;</li><li>• Tons of ore mined since the last anniversary date</li><li>• Tons of overburden/was te mined</li><li>• A map showing all reclamation completed and any changes to the approved operating and reclamation plan</li></ul> |                |                       |                         | <div><div>– Topsoil salvage</div><div>– Hydrologic balance</div><div>– Sides, subsidence or damage protection</div><div>– Spoil piles</div><div>– Landowner consultation</div><div>– Reclamation timetable</div><div>– Plot-closure plan</div><div>– Critical resources</div></div> |                                            |                |