



## Idaho Department of Environmental Quality Revised FINAL §401 Water Quality Certification

December 4, 2013

### **NPDES Permit: Modified Small Suction Dredge Placer Miners General Permit for Idaho (IDG-37-0000)**

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Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended, 33 USC Section 1341 (a)(1), and Idaho Code §§ 39-101 et.seq., and 39-3601 et.seq., the Idaho Department of Environmental Quality (DEQ) has authority to review National Pollutant Discharge Elimination System (NDPES) permits and issue water quality certification decisions.

Based upon its review of the above-referenced permit, associated fact sheet and compiled research pertaining to the effects of suction dredging, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, including the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02) and other appropriate water quality requirements of State law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations or permits.

### **Antidegradation Review**

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- **Tier 1 Protection.** The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- **Tier 2 Protection.** The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

- Tier 3 Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier 1 protection for that use, unless specific circumstances warranting Tier 2 protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

### *Pollutants of Concern*

Sediment and Mercury are the only two pollutants of concern associated with recreational dredging discharges authorized under the Small Suction Dredge Placer Miners General Permit (GP). These pollutants are relevant to both aquatic life and recreational beneficial uses; therefore, DEQ must evaluate the permit with respect to maintaining and protecting these uses in Idaho streams.

### *Receiving Water Body Level of Protection*

The Small Suction Dredge Placer Miners GP provides coverage throughout the State of Idaho *except* for the following areas:

- National Protected Areas including National Parks and Preserves, National Monuments, National Sanctuaries, National Wildlife Refuges, National Conservation Areas, and National Wilderness Areas;
- Critical Habitat designated under the Endangered Species Act;
- National Wild and Scenic Rivers;
- Specific river segments withdrawn by the State Board of Land Commissioners including sections of the Boise, Payette, Priest, Salmon and Snake Rivers;
- State Protected Rivers;
- Waters of the State which are 303(d)-listed ("impaired") for sediment or mercury; and
- All areas where any of the following four species of snails, that are listed as either threatened or endangered under the ESA, are known to occur: Snake River Physa, Banbury Springs Limpet, Bliss Rapids Snail, and Bruneau Hot Springsnail.

All waters in Idaho that receive discharges associated with small suction dredges authorized under the Small Suction Dredge Placer Miners GP will receive, at minimum, Tier 1 antidegradation protection because Idaho's antidegradation policy applies to all state waters. Water bodies that fully support their aquatic life or recreational uses are considered to be "high quality waters" and will receive Tier 2 antidegradation protection, in addition to Tier 1 protection. Although Idaho does not currently have any outstanding designated resource waters (ORWs), it is possible that a water body could be designated as an ORW during the life of this permit. Because of this potential, this antidegradation

review will also assess whether the permit complies with the outstanding resource water requirements (Tier 3 protections) of Idaho's antidegradation policy.

### ***Protection and Maintenance of Existing Uses (Tier 1 Protection)***

As noted above, a Tier 1 review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the CWA, and requires a showing that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish wasteload allocations (WLA) for point source discharges, which are set at levels designed to help restore the water body to a condition that supports existing and designated beneficial uses. Discharge permits must contain limitations that are consistent with wasteload allocations in the approved TMDL. A permit with effluent limitations consistent with TMDL wasteload allocations will provide the level of water quality necessary to support existing and designated uses and therefore satisfies Tier 1 antidegradation requirements.

The water quality-based effluent limitations and requirements contained in the Small Suction Dredge Placer Miners GP, coupled with the conditions set forth in this certification, are designed to ensure compliance with the narrative and numeric criteria in the Idaho WQS. Specifically, the permit and the certification prohibit any visible increase in turbidity above background beyond the mixing zone. The permit authorizes a 500-foot mixing zone for turbidity, which is consistent with state WQS (IDAPA 58.01.02.060). Additionally, the permit prohibits suction dredging in waters that have been identified by DEQ as impaired due to sedimentation/siltation, except for where an existing TMDL has an established wasteload allocation for discharges associated with suction dredging. The permit references two specific TMDLs which contain wasteload allocations for small suction dredging, and the responsibility of the permittee to operate in compliance with those allocations through monitoring and reporting. EPA has set restrictions on the number of operators allowed on these waters in order to comply with the established WLAs. For these reasons, the permit ensures compliance with WLAs in the applicable TMDLs, as well as the provisions of Section 055 of Idaho's WQS with respect to sediment.

The Small Suction Dredge Placer Miners GP *does not authorize* discharges of mercury, but operators of dredging equipment may encounter and recover mercury during dredging operations. This is especially true in areas where historic mining has taken place and mercury may be present in higher than normal concentrations. The permit contains requirements pertaining to the handling and collection of mercury which may be encountered as a result of dredging activities. The permittee is advised to adhere to

DEQ's *Best Management Practices for Mercury Collection from Suction Dredging Activities*, and to contact DEQ for information on hazardous waste regulations.

While suction dredging removes some mercury from the streambed substrate, it also mobilizes and releases mercury into the water column. Research shows that not all of the mercury that is released during dredging activities is removed from the water column. Dredging breaks up liquid mercury into smaller particles, increasing the surface area and under specific water quality conditions may enhance transformation of mercury into methylmercury. Where waters of the State are already not supporting beneficial uses due to elevated levels of mercury, and there is no mercury TMDL in place with an allocation for suction dredging, further loading of this pollutant may violate WQS (IDAPA 58.01.02.055; IDAPA 58.02.080). Under these circumstances, DEQ does not have reasonable assurance of compliance with WQS where waters are already impaired by mercury. Therefore, DEQ denies certification of this general permit for the following water bodies, which have been identified as "impaired" by mercury:

**Table 1. Waters of the State impaired by mercury**

<i>Assessment Unit(s) (AUs)</i>	<i>Segment Name</i>	<i>Waterbody name(s) within the impaired AU(s)</i>
17050108SW004_02 17050108SW004_03 17050108SW004_04	Jordan Creek – source to Williams Creek	Buck Creek, Bull Frame Creek, China Creek, Cunningham Creek, Duck Creek, East Fork Goose Creek, Goose Creek, Iron Mine Creek, Jordan Creek, Pole Creek, Presby Creek, Rail Creek, West Fork Goose Creek
17060209SL008_07	Salmon River – Slate Creek to Rice Creek	Salmon River
17040206SK022_04	Snake River – river mile 791 (T01N, R37E, Sec. 10) to American Falls Reservoir	Snake River

Mercury impaired water bodies are listed in Table 1 above; this list is subject to change during the life of the permit, as the Integrated Report is updated every two (2) years and the permit will be valid for a term of five (5) years. Therefore, it is the permittees responsibility to know whether or not additional waters have been added to this list. The permittee must use the most current EPA-approved Integrated Report, available on Idaho DEQ's website: <http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integratedreport.aspx>. Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) reflects impaired waters for which a TMDL has been approved by EPA. Category 5 contains waters which have been identified as "impaired" but do not yet have an EPA-approved TMDL.

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format:

<http://mapcase.deq.idaho.gov/wq2010/>. This map-based tool contains a layer which is specific to mercury listings. The permittee is advised to contact the appropriate DEQ regional office (Table 2) to verify these listings.

### ***Protection of High-Quality Waters (Tier 2 Protection)***

As indicated previously, water bodies that fully support their beneficial uses will be provided Tier 2 protection. As such, the quality of these waters must be maintained and protected, unless it is deemed necessary to accommodate important economic or social development. For a reissued permit or license, the effect on water quality is determined by looking at the difference in water quality that would result from the activity or discharge as authorized in the current permit and the water quality that would result from the activity or discharge as proposed in the reissued permit or license (IDAPA 58.01.02.052.06.a). For a new permit or license, the effect on water quality is determined by reviewing the difference between the existing receiving water quality and the water quality that would result from the activity or discharge as proposed in the new permit or license (IDAPA 58.01.02.052.04.a). For general permits, the Department conducts an antidegradation review, including any Tier 2 analysis, at the time at which general permits are certified (IDAPA 58.01.02.052.03).

The Small Suction Dredge Placer Miners GP sets restrictions on when and where recreational dredging will be allowed to occur. Many of the waters on which operations are prohibited are high quality waters. The permit also sets limits on the number of operations allowed on certain water bodies. The permit includes a number of provisions aimed at preventing increases in turbidity and sediment loading. The permit includes an effluent limit for turbidity. The permit also requires the use of best management practices (BMPs) that include BMPs that will limit erosion and the increase in turbidity. These BMPs include: the requirement to use reasonable care to avoid the dredging of silt and clay materials; the prohibition of altering the stream channel in a way that would redirect the flow of water into the stream bank; the prohibition of undercutting, littoral channeling, stream bank or beach erosion, and the removal or disturbance of boulders or any type of vegetation on the stream bank. The permit also includes provisions to ensure adequate fish passage and protection of spawning fish and spawning habitat. This certification also includes provisions to mitigate erosion, including a prohibition on stream bank dredging and restrictions on the use of mechanized equipment. Based upon the limits in the permit, and the terms of this certification, DEQ believes that dredging activities are unlikely to cause adverse changes in water quality, when appropriate mixing is taken into account. Moreover, if there is a change in sediment levels, any such change will be short-term and temporary.

DEQ has denied certification with respect to dredging in waters where there are known high levels of mercury. DEQ has no information to suggest that mercury increases will be an issue in those waters that do not contain higher than normal mercury levels. Therefore, DEQ believes it is unlikely there will be an increase in mercury levels in tier 2 waters that would violate the tier 2 antidegradation policy. For these reasons, DEQ believes that the permit is protective of water quality and that suction dredging is not likely to cause adverse changes in water quality. Furthermore, EPA may decide that an individual permit

is needed and will require the applicant to obtain an individual water quality certification from the state.

In sum, DEQ has determined that as long as permittees operate consistent with the terms of the NPDES permit as well as the requirements set forth in this certification, there is reasonable assurance that existing and designated beneficial uses will be protected and maintained and there will be no degradation or adverse change in water quality.

### ***Protection of Outstanding Resource Waters (Tier 3 Protection)***

As a condition of this certification, DEQ is requiring any applicant proposing to discharge to an ORW, should one become designated during the term of this permit, to obtain an individual NPDES permit from EPA. This requirement complies with Idaho's antidegradation provisions concerning ORWs.

### **Denial of Certification With Respect to Water Bodies Impaired due to Mercury and/or Siltation/Sedimentation**

As explained above in the antidegradation review, DEQ does not have reasonable assurance of compliance with WQS with respect to suction dredging activities on mercury impaired water bodies or sediment impaired water bodies, except for where an existing TMDL has an established wasteload allocation for discharges associated with suction dredging, and therefore, denies certification for such operations.

### **Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Applicable Water Quality Requirements of State Law**

#### ***Mixing Zone***

Pursuant to IDAPA 58.01.02.060, DEQ authorizes the use of a mixing zone that extends 500 lineal feet downstream of the discharge. There shall be no observable turbidity plume extending beyond the limits of the mixing zone. This limit applies even where multiple suction dredgers are operating (as defined in the GP) at the same time and in the same vicinity; the combined mixing zone shall not exceed 500 feet in length.

#### ***Stream Channel Alteration Permit Requirements***

Pursuant to IDAPA 37.03.07, operators must also obtain a stream alteration permit for recreational dredging from the Idaho Department of Water Resources. A permit application may be obtained from the following web page:

<http://www.idwr.idaho.gov/WaterManagement/StreamsDams/Streams/AlterationPermit/AlterationPermit.htm>.

#### ***Fish Passage***

The permittee shall ensure there is adequate passage for fish around and through the mining area at all times (IDAPA 58.01.02.050.02; IDAPA 58.01.02.080.01).

### ***Invasive Species***

Pursuant to IDAPA 02.06.09, operators must ensure their dredging equipment does not house invasive species. Equipment must be decontaminated prior to its placement in waters of the state. Furthermore, dredging equipment used in multiple streams must be decontaminated before each deployment. Decontamination procedures may be found at: [http://www.deq.idaho.gov/media/457155-decontamination\\_procedures.pdf](http://www.deq.idaho.gov/media/457155-decontamination_procedures.pdf).

### ***Stream banks***

Dredging stream banks is not authorized. Removal or disturbance of boulders (cobbles or large rock) or any type of vegetation (alive or dead) on the stream bank, leading to erosion or undercutting of the banks is prohibited (IDAPA 58.01.02.050.02; IDAPA 37.03.07.064.04).

### ***Mechanized Equipment***

There shall be no use of mechanized equipment below the mean high water mark except for the dredge itself, and any life support system necessary to operate the dredge (IDAPA 37.03.07.064.03).

### ***Hazardous and Deleterious Material Storage***

Hazardous and deleterious materials must not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of state waters unless adequate measures and controls are provided to ensure that those materials will not enter state waters as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third party activities (IDAPA 58.01.02.800).

### ***Reporting of Discharges Containing Hazardous Materials or Petroleum Products***

Discharges of oil, grease, fuel, or other hazardous materials associated with the dredging activity must be reported in accordance with this condition. Equipment used for suction dredging must be in proper working condition and shall not leak petroleum products. The permittee must check the equipment for fuel and oil leaks daily prior to operation.

In accordance with IDAPA 58.01.02.850, if a spill of hazardous materials or petroleum products occurs, the permittee must stop, contain, remove, and mitigate the spill(s) immediately. Spilled materials must be disposed of properly. Any spill of hazardous materials must be immediately reported to the appropriate DEQ regional office (Table 2).

An above ground spill or overflow of petroleum that results in a release that exceeds 25 gallons or that causes a sheen on surface water shall be reported to the DEQ within 24-hours and owners must begin corrective actions immediately in accordance with IDAPA 58.01.02.852. Spills that result in a release of less than 25 gallons shall only be reported to the DEQ if clean-up cannot be accomplished within 24-hours (IDAPA 58.01.02.851.04).

**Table 2. DEQ Regional Office contact information**

<i>Region</i>	<i>Contact Name</i>	<i>Phone Number</i>	<i>Address</i>
Boise	Lance Holloway	208-373-0550	1445 N. Orchard, Boise, 83706
Coeur d'Alene	June Bergquist	208-769-1422	2110 Ironwood Parkway, Coeur d'Alene, 83814
Idaho Falls	Troy Saffle	208-528-2650	900 N. Skyline Ste. B., Idaho Falls, 83402
Lewiston	John Cardwell	208-799-4370	1118 "F" Street, Lewiston, 83501
Pocatello	Lynn Van Every	208-236-6160	444 Hospital Way #300, Pocatello, 83201
Twin Falls	Balthasar Buhidar	208-736-2190	650 Addison Ave. W, Ste. 110 Twin Falls, 83301

### ***Other Conditions***

This certification is conditioned upon the requirement that any material modification of this permit or the permitted activities including without limitation, any modifications of the permit to reflect new or modified TMDL wasteload allocations or other new information, shall first be provided to DEQ for review to determine compliance with WQS and to provide additional or individual certification pursuant to Section 401.

### **Right to Appeal Final Certification**

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5), and the Rules of Administrative Procedure Before the Board of Environmental Quality, IDAPA 58.01.23, within 35 days of the date of the final certification.

Questions regarding the actions taken in this certification should be directed to Miranda Adams, DEQ State Office, at (208) 373-0574 or [miranda.adams@deq.idaho.gov](mailto:miranda.adams@deq.idaho.gov).



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