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Administrative Procedure Act Determinations

Hydraulic Code Rules Chapter 220-660 WAC

2019 HPA Suction Dredge Rule Making

WAC 220-660-030 Definitions

WAC 220-660-300 Mineral Prospecting

WAC 220-660-305 Suction Dredging [New Section]

Washington Department of Fish and Wildlife
Habitat Program
Protection Division
Olympia, Washington

DRAFT February 22, 2019

***Mission
of the
Washington Department of Fish and Wildlife***

*To preserve, protect and perpetuate fish, wildlife, and ecosystems
while providing sustainable fish and wildlife
recreational and commercial opportunities.*

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INTRODUCTION

This report presents Washington Department of Fish and Wildlife (WDFW) analyses and determinations pursuant to the Administrative Procedure Act (APA), chapter 34.05 Revised Code of Washington (RCW), for proposed amendments to Hydraulic Code Rules in 220-660-030, 220-660-300, and new section 220-660-305 of the Washington Administrative Code (WAC). Analyses pursuant to the Regulatory Fairness Act, chapter 19.85 RCW, are provided in a separate document entitled *2019 HPA Suction Dredge Rule Making Small Business Economic Impact Statement*.

WDFW writes and adopts Hydraulic Code Rules to implement Chapter 77.55 RCW titled *Construction Projects in State Waters* and also known as the *Hydraulic Code*.

This document is organized in relation to the APA determinations listed under RCW 34.05.328 for significant legislative rules, as follows:

- [Section 1](#) Describes the rule and explains why it's needed.
- [Section 2](#) Contains a notification that a significant legislative rule analysis is required.
- [Section 3](#) Provides goals and objectives for the statute governing the rule, for the rule, and for this specific rule making activity.
- [Section 4](#) Discusses how the proposed rule meets the goals and objectives discussed in section 3.
- [Section 5](#) Presents information on outreach during the preproposal period.
- [Section 6](#) Provides a cost-benefit analysis.
- [Section 7](#) Provides a discussion and determination of the least burdensome alternative.
- [Section 8](#) Explores the relationship of the proposal to other state and federal laws, includes a determination that the proposal applies equally to public and private entities, describes coordination with state and federal agencies, and explains the difference between the proposal and other state or federal laws.
- [Section 9](#) Provides a list of sources of information as required by RCW 34.05.271(1)(a).

This document is available on WDFW's HPA rule making web page at <https://wdfw.wa.gov/licensing/hpa/rulemaking/>

SECTION 1: Describe the proposed rule and its history

On April 14, 2018, the Fish and Wildlife Commission (Commission) directed WDFW to propose rule changes that will remove suction dredging as an activity authorized under the Gold and Fish Pamphlet. New rules would be needed to require suction dredgers¹ to apply for standard HPAs. The Commission also directed WDFW to propose rules that require suction dredgers to report

¹ The terms "suction dredgers," "dredgers," "miners," and "mineral prospectors" are used interchangeably throughout this document and refer to persons who would be required to comply with the proposed rules unless the context clearly indicated otherwise.

their activities annually and rules that reduce risk that dredgers will spread aquatic invasive species.

1.1 Specific Objectives for this Rule Making

To better assess the risk to fish life, target compliance inspections, and prevent the spread of aquatic invasive species, WDFW’s objectives in this rule making include the following:

- ✓ Remove suction dredging as an allowed method under Gold and Fish Pamphlet rules (section 220-660-300)
- ✓ Develop an individual HPA application method for suction dredging that is streamlined;
- ✓ Develop application and reporting methods to enable WDFW to determine:
 - the number of prospectors engaged in suction dredging and
 - where and how much suction dredging occurs; and
- ✓ Identify methods to prevent the spread of aquatic invasive species through the movement of suction dredging equipment into and around the state.

1.2 Describe the proposed rule

Table 1 presents the proposed Suction Dredge Rule Change Proposals (Proposals). WDFW has provided an annotated version of the rule changes and assigned sequential rule change numbers to help people comment and also to help readers follow a particular change through analysis discussions. The annotated rule change document is provided on the public WDFW web site as a convenience to reviewers. This numbering will help readers cross reference between the annotated rule changes document, the analyses within this document, and comments we receive during the public comment period. The table presents changes listed in sequential order by change number and WAC subsection number.

Table 1 WDFW 2018 Suction Dredge Rule Change Proposals presented by section and subsection number

Change #	(WAC Subsection) and Change	Description
WAC 220-660-030 Definitions		
Change 1	(36) Update definition of “dredge” to exclude subsurface hard rock mining;	Clarifies that hard rock mining is not included in the definition of dredging, per request from a hard rock mining stakeholder.
Change 2	(37) Add a definition for “dryland dredge”	Definition of dryland dredge is new - this is an emerging use of suction dredge equipment.
Change 3	(118) Delete definition of “prospecting”	Definition of “Prospecting” is redundant to “Mineral Prospecting,” so “prospecting” is proposed for deletion.

Change #	(WAC Subsection) and Change	Description
Change 4	(140) Modify existing definition for “suction dredge” to encompass dryland dredges, gravity dredges, and hand-operated dredges	Changes definition to include additional forms of suction dredge equipment. The definition encompasses typical suction dredges, power sluice/suction dredge combinations, dryland dredges, gravity dredges, and hand-operated dredges (such as the Gold-N-Sand hand dredge). The definition specifically excludes bulb sniffers because operation of this equipment is different from typical suction dredges.
WAC 220-660-300 Mineral prospecting		
Change 5	(1): Remove suction dredges from equipment authorized for use under the Gold and Fish Pamphlet;	Edits to this paragraph in subsection (1) clarify which equipment is covered in this section and specify that suction dredging is not authorized in this section.
Change 6	(2)(a)(ii): Remove fish life impacts specific to suction dredging;	Since dredging is removed from section -300, we are removing this potential impact from the list of fish life concerns from subsection (2) of this section.
Change 7	(3)(b) Delete reference to “individual” HPAs	Corrects an administrative error that has persisted through previous rule changes. Under the description of standard HPAs in WAC 220-660-050, an individual HPA is for a single site. WDFW’s intent has been to allow for both single-site and multi-site HPAs, so we propose eliminating the word “individual”.
Change 8	(5)(b): Change “wetter” to “wetted”	Corrects a typographical error that has persisted through previous rule changes.
Change 9	(5)(b)(iv): Remove technical provisions for suction dredging.	Removes references to technical provisions for suction dredge equipment. Figure 5 is also removed because it is not referenced elsewhere. Subsequent figures are renumbered.
Change 10	(5)(c)(v): Edit content for clarity	Distinguishes power sluice/suction dredge combinations, and removes reference to this equipment being used in suction dredge mode. Combination equipment can’t be used in suction dredge mode under this section.
Change 11	(5)(d): Remove technical provisions for suction dredging and clarify remaining language.	Clarifies that a suction dredge nozzle and hose are not allowed to be attached to combination equipment or stored on site when power sluice/suction dredge combinations are being used as power sluices only. This prevents conversion to suction dredge mode when operating combination equipment under this section.
Change 12	(5)(f)(ii) and (iii): Edit content for clarity	Clarifies that combination equipment, high-banker, or power sluices operating within the wetted perimeter must be at least 200 feet away from other combination, high-banker, power sluice, or suction dredge equipment. The figure is deleted because the text is self-explanatory.

Change #	(WAC Subsection) and Change	Description
Change 13	(6)(1)(d)(iv) and (v) and (6)(1)(e): Remove suction dredge gear under ocean beach prospecting and edit remaining content for clarity.	Removes suction dredge gear as authorized under subsection (6) for ocean beach prospecting, as with changes 9 through 12. Suction dredging on ocean beaches is authorized under new section -305.
Change 14	(7)(e): Delete reference to “individual” HPA.	Corrects an administrative error that has persisted through previous rule changes. Under the description of standard HPAs in WAC 220-660-050, an individual HPA is for a single site. WDFW’s intent has been to allow for both single-site and multi-site HPAs, so we propose eliminating the word “individual”.
Change 15	(7)(f): Edit content for clarity, remove references to suction dredge nozzle sizes in table of authorized work times, and correct a typographical error.	This change includes modifications to introductory language. Also, the right two columns of Table 1 are deleted because suction dredges are removed from this section. The table is still relevant to other mineral prospecting equipment, but that equipment does not have size restrictions that are related to location. Table number is corrected from a typographical error that has persisted through previous rule changes.
WAC 220-660-305 Suction dredging (New Section)		
Note:	Although all information in this section is new, we are only highlighting elements as “changes” that represent differences from or additions to suction dredging requirements brought over verbatim from section -300.	
Change 16	(2)(iv) Adds a description of impacts to fish life from aquatic invasive species.	This language about aquatic invasive species impacts on fish and habitat is new (i.e. did not appear in section -300). The language is needed to tie aquatic invasive species provisions under this section to fish life protection.
Change 17	(3)(a): Identify application methods for suction dredge HPAs: written standard single site, or standard multi-site HPA.	One of two possible types of HPA is required for suction dredging. Standard single-site and standard multisite HPAs are common HPA types defined in 220-660-050 (no changes are proposed to -050). This change is also referred to as the “Suction Dredge HPA Required Rule” in subsequent analyses.
Change 18	(3)(c): Adds specifications for identifying suction dredge sites; limits sites to 1,300 feet or the length contained within a registered mining claim.	Specifies the way applicants identify a suction dredging location, and limits each site to 1,300 linear feet if the project is not on a registered mining claim. The objective of this change is to limit the length of each suction dredging location to a size that can be reasonably surveyed by WDFW biologists within the 45 day application review period.

Change #	(WAC Subsection) and Change	Description
Change 19	(4) Adds requirement to clean equipment to prevent spread of aquatic invasive species	Adds technical provisions intended to provide protection against the spread of aquatic invasive species. These requirements are referred to as “Aquatic Invasive Species Rule” in subsequent analyses.
Change 20	(5)(d) and (e): Creates requirements for use of dryland dredges	Specifies how dryland dredges may be used. These provisions are the same as applied to high-bankers and power sluices in section -300.
Change 21	(5)(r) and (6)(k): allows pressurized water use	Provides for use of pressurized water when operating a dryland dredge using water supplied through a low-pressure valve on the nozzle.
Change 22	(7)(a): Standard single-site or multisite HPA is needed to suction dredge with the equipment and timing restrictions shown in the table	Clarifies that persons with standard single- or multi-site HPAs for suction dredging must adhere to the timing and equipment restrictions in the table unless their HPA indicates an exception has been granted.
Change 23	(7)(e): Exceptions to Table 1 provisions require a standard HPA.	This change requires any person seeking exceptions to the table or wishing to work in “Submit Application waters” to get a standard HPA .
Change 24	(8): Creates requirement to submit annual report regarding the date, amount, type, and location of suction dredging activities.	Specifies that reporting is required by February 1 each year for suction dredging activities regulated under this section. Reporting is a critical for meeting rule change objectives for reporting methods to enable WDFW to determine the number of prospectors engaged in suction dredging and where and how much suction dredging occurs. This change is also referred to as the “Annual Reporting Rule” in subsequent analyses.

1.3 History of this Rule Making Action

On November 10, 2017, Trout Unlimited filed a petition to the Commission that requested the Commission to remove motorized suction dredging as an authorized activity in the Gold and Fish pamphlet (WAC 220-660-300) and, instead, require individual applications for standard HPAs.

On January 5, 2018, WDFW staff briefed the Commission on the Trout Unlimited petition. The Commission denied the petition, but asked for an additional briefing and panel discussion on the science related to mineral prospecting, potential risks to fish life, how the current rule addresses the risks, and other policy considerations.

On February 10, 2018, panels representing WDFW, mineral prospectors, and the environmental community presented the requested information to the Commission. The Commission

also heard public comment from interested parties during the meeting. After this meeting, the Commission requested a future briefing from staff on further aspects of motorized mineral prospecting.

On April 14, 2018, staff provided an additional briefing to the Commission, including the geographic extent of the activity in Washington, the enforceability of the current rule, the extent of the threat from aquatic invasive species resulting from movement of mineral prospecting equipment around the state, a comparison of Washington and neighboring states' regulations, and options and possible timelines for rule development.

On April 14, 2018, following that presentation, the Commission directed staff to commence rule making to meet the objectives as stated in section 1.1.

Refer to Section 5 - Involving Stakeholders - for a timeline of additional milestones related to this rule making activity.

1.3.1 History of regulating mineral prospecting

Before 1980, mineral prospecting required standard HPA permits. In 1980, Washington Departments of Fisheries and Game, which jointly administered the hydraulic code, distributed a "pamphlet" containing regulations for mineral prospecting that specified classification of streams, timing, dredge nozzle size, and sluice box size. At that time, only panning and sluicing could be conducted using the pamphlet; other activities listed in the pamphlet required standard HPAs. The agencies frequently modified and re-issued pamphlets (the agencies merged to form Department of Fish and Wildlife in 1993).

In 1997, the Washington state Legislature passed *Substitute House Bill 1565* requiring WDFW to regulate some types of mineral prospecting through the pamphlet without issuing standard HPAs. WDFW conducted rule making in 1998 and involved mineral prospectors and other interested parties in the development of those rules. Those rules were adopted in 1999, and the new pamphlet was issued. Another stakeholder process and rule update occurred in November 2008, resulting in another pamphlet edition in 2009.

WDFW has continued to update its prospecting rules and the Gold and Fish Pamphlet. In 2015, the entire body of hydraulic code rules was overhauled and moved into a new WAC section (chapter 220-660 WAC). Four mineral prospecting rules were consolidated into one section (WAC 220-660-300) without substantive changes, and authorized work times (work windows) were amended in some areas, requiring a pamphlet update in July 2015. In 2018, mineral prospecting rules were again amended to reflect work window changes in additional water bodies, and a revised pamphlet was issued in June 2018. Currently, certain prospecting activities do not require a standard HPA permit so long as the prospector follows the requirements in the pamphlet. Alternatively, when a miner wants to vary any of the Pamphlet requirements, such as equipment limits or work window timing, that person must apply for a standard HPA permit.

SECTION 2: Significant Legislative Rule Analysis Required

RCW 34.05.328(5)(a) "Except as provided in (b) of this subsection, this section applies to: (i) ... the legislative rules of the department of fish and wildlife implementing

chapter 77.55 RCW;...”

Hydraulic code rules in chapter 220-660 WAC are significant legislative rules as specified in RCW 34.05.328(5)(a)(i). Analyses pursuant to RCW 34.05.328 are provided for this rule proposal.

SECTION 3: Goals and Objectives of the Statute that the Rule Implements

RCW 34.05.328 (1)(a) “Clearly state in detail the general goals and specific objectives of the statute that the rule implements;”

3.1 Chapter 77.55 RCW - the Hydraulic Code - Goals and Objectives

The state Legislature gave WDFW the responsibility to preserve, protect, and perpetuate all fish and shellfish resources of the state, and to

“...authorize the taking of wildlife, food fish, game fish, and shellfish only at times or places, or in manners or quantities, as in the judgment of the commission does not impair the supply of these resources.” RCW 77.04.012

The Legislature also granted the Commission very broad authority to adopt rules to protect fish life for a wide variety of activities in Washington waters:

The commission may adopt, amend, or repeal rules: specifying the times when the taking of wildlife, fish, or shellfish is lawful or unlawful; specifying the areas and waters in which the taking and possession of wildlife, fish, or shellfish is lawful or unlawful; specifying and defining the gear, appliances, or other equipment and methods that may be used to take wildlife, fish, or shellfish, and specifying the times, places, and manner in which the equipment may be used or possessed. RCW 77.12.047.

To help achieve the agency’s mandate, the Legislature passed a state law in 1943 called *Protection of Fish Life*, now recorded as [Chapter 77.55 RCW - Construction projects in state waters](#). The entire text of the statute can be found at: <http://app.leg.wa.gov/RCW/default.aspx?cite=77.55> .

[RCW 77.55.011](#)(11) defines a “hydraulic project” as

“the construction or performance of work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or freshwater of the state.”

[RCW 77.55.021](#)(1) states

“...In the event that any person² or government agency desires to undertake a hydraulic project, the person or government agency shall, before commencing work thereon, secure the approval from the department in the form of a permit as to the adequacy of the means proposed for the protection of fish life.”

² A “person” is defined in WAC 220-660-030(112) as meaning “an applicant, authorized agent, permittee, or contractor. The term person includes an individual, a public or private entity, or organization.” This term is used throughout this document to refer to individuals, organizations, and businesses.

The Legislature limited WDFW's regulatory authority: WDFW cannot unreasonably withhold or unreasonably condition the HPA [[RCW 77.55.021](#)(7)(a)], nor can WDFW impose conditions that optimize fish life:

“Conditions imposed upon a permit must be reasonably related to the project. The permit conditions must ensure that the project provides proper protection for fish life, but the department may not impose conditions that attempt to optimize conditions for fish life that are out of proportion to the impact of the proposed project.” [RCW 77.55.231](#)(1)

The Hydraulic Code is intended to ensure that hydraulic projects adequately protect fish life.

3.2 Chapter 77.135 - Aquatic Invasive Species - Goals and Objectives

The introduction to the Aquatic Invasive Species Act addresses the severity of consequences from the spread of aquatic invasive species:

The state's fish, wildlife, and habitat are exceptionally valuable environmental resources for the state's citizens.... Invasive species pose a grave threat to these environmental ...resources, especially to salmon recovery and state and federally listed threatened and endangered species... Because of the significant harm invasive species can cause, invasive species constitute a public nuisance. If allowed to become established, invasive species can threaten human health and cause environmental and economic disasters affecting not only our state, but other states and nations... Prevention of invasive species is a cost-effective, successful, and proven management strategy. Prevention is the state's highest management priority with an emphasis on education and outreach, inspections, and rapid response. **Findings—2014 c 202**³

Chapter 77.135 RCW provides authority for WDFW to address invasive species using an integrated management approach. Authority is conveyed for WDFW to adopt rules to require clean/drain/dry or other decontamination methods and to require inspections for aquatic conveyances entering Washington State⁴. Together, chapters 77.55 and 77.135 express the goal to prevent the spread of aquatic invasive species and to condition hydraulic projects for the protection of fish life.

³ [RCW 77.135.010](#) (1) "Aquatic conveyance" means transportable personal property having the potential to move an aquatic invasive species from one aquatic environment to another. Aquatic conveyances include but are not limited to vessels and associated equipment, float planes, construction equipment, fish tanker trucks, hydroelectric and irrigation equipment, personal fishing and hunting gear, and materials used for aquatic habitat mitigation or restoration.

(25) "Small vessel" means a management category of aquatic conveyances including every description of vessel on the water used or capable of being used as a means of transportation on the water, except: (a) Inner tubes, air mattresses, sailboards, and small rafts or flotation devices or toys customarily used by swimmers; (b) Vessels meeting registration requirements under chapter [88.02](#) RCW; and (c) Seaplanes.

⁴ [RCW 77.135.020](#), [RCW 77.135.100](#), [RCW 77.135.110](#), [RCW 77.135.130](#)

SECTION 4: How the Rule Meets the Objectives of the Statute

RCW 34.05.328 (1)(b): “Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection [i.e. for the statute that the rule implements], and analyze alternatives to rule making and the consequences of not adopting the rule;”

4.1 Why is the Proposed Rule Needed?

The proposed rule is needed in order to increase WDFW understanding about potential unaddressed impacts to fish life from suction dredging and to add provisions to prevent the spread of aquatic invasive species through the movement of suction dredging equipment into and around the state.

The Commission gave three reasons why these changes were needed. First, no application is required to work under the Gold and Fish Pamphlet. As a result, WDFW doesn’t know how many dredges are operating statewide and where or when they are being operated. Obtaining this information would improve WDFW’s ability to assess the potential risks to fish life, including potential cumulative impacts, and to target inspections to ensure dredgers are complying with HPA provisions.

Second, WDFW is concerned that Washington will experience an increase in dredgers as a consequence of Oregon’s expanded restrictions on suction dredging that became effective January 1, 2018. The reason WDFW is concerned about this problem is because Oregon experienced a significant increase in suction dredgers, from 656 permitted placer miners in 2008 to 1,095 permitted placer miners in 2010, that Oregon Department of State Lands attributed to the moratorium California placed on suction dredging in 2009⁵. WDFW currently does not know how many out-of-state dredgers work under the pamphlet, and would have no way of knowing how many more were coming into Washington to dredge resulting from the new Oregon rules. Again, obtaining this information would improve WDFW’s ability to assess the potential risks to fish life.

Third, WDFW assumes that an increase in the number of out-of-state dredgers would increase the risk of aquatic invasive species (AIS) coming into the state. Dredgers, like other watercraft, could also spread aquatic invasive species in-state when they move their equipment from waterbody to waterbody. Although chapter 77.135 requires inspections and decontamination for aquatic invasive species, the Gold and Fish Pamphlet does not explicitly require inspections of dredges coming into the state, nor does the pamphlet include best practices to prevent the spread of aquatic invasive species in-state. Once non-native species become established in a new environment, where their natural enemies are missing, these invaders can spread rapidly. Aquatic invasive species can out-compete native species and disrupt efforts to recover naturally-reproducing salmon, steelhead, and trout stocks.

⁵ Louise Solliday, Director Oregon Department of State Lands. December 14, 2010. Letter to Oregon Governor Theodore R. Kulongoski providing a Status Report on Placer Mining in Oregon.

The proposed rule is needed to ensure suction dredging rules adequately protect fish life. The rule making will allow WDFW to gather important new information that will increase our understanding about potentially-unaddressed impacts to fish life from suction dredging. WDFW will use this new information to determine whether additional rule making is needed in the future to adequately protect fish life. The rule making also adds provisions to prevent the spread of aquatic invasive species through the movement of suction dredging equipment into and around the state.

4.2 Alternatives to rule making?

It would be difficult for WDFW to implement the objectives of this rule making without modifying the hydraulic code rules. Following is a discussion of alternatives to rule making that we considered before filing a preproposal notice of inquiry.

4.2.1 Voluntary compliance

One alternative to rule making is to seek voluntary compliance to meet the Commission's objectives:

- Announcement through several media indicating a change in procedure for permitting suction dredging under the hydraulic code rules.
- Announcement through media that annual suction dredge activity reporting is needed.
- Announcement through various media and in standard HPAs that new provisions are necessary to prevent the spread of aquatic invasive species.
- Voluntary compliance with all three announcements.

Concerns with this approach include:

- It would be difficult to reach all potential persons whose activity qualifies them for special suction dredging application and reporting methods.
- People are unlikely to comply because it costs them more time and is inconvenient to comply, and because there would be no consequences for noncompliance. This is because WDFW doesn't have sufficient authority to impose consequences for noncompliance with a voluntary program.
- Requiring a standard HPA and implementing activities reporting on a voluntary basis only solves part of the problem - the essential problem remains: we don't know who to contact to inform them of the new requests.

A change having the magnitude of the proposal has not been done without rule changes. WDFW isn't sure how people would know an HPA is needed (instead of continuing to suction dredge under the Gold and Fish pamphlet) or that reporting is required without the publicity caused by a rule change proposal and the subsequent rule making public process and participation.

The challenge to implementing annual reporting for suction dredgers is that only some of the persons who conduct suction dredging activities are known to us. Asking known⁶ dredgers to submit annual reports would be a good start, but would not give us the information we need on the extent of suction dredging activity in Washington.

Another alternative would be to amend the pamphlet to include the reporting and aquatic invasive species rule changes. Under this alternative, WDFW would have no way to know whether a person did not comply with the new rules unless that person made themselves known to WDFW.

4.2.2 WDFW monitoring program

WDFW could mount a suction dredging monitoring program to attempt to collect the data stated in the rule making objectives. Without knowing exact locations where suction dredge activity is occurring, WDFW would expend a lot of resources finding locations to survey. Once locations were identified, surveys similar in scale to sport and commercial salmon fishing catch and effort sampling would be necessary to collect the data needed to provide answers to the questions posed in the Commission's direction to WDFW staff. The resources needed to identify locations and survey suction dredging participants would likely far exceed those needed to process HPA applications and compile activity reporting data as specified in the proposed rule.

4.2.3 Alternatives for aquatic invasive species provisions

Achieving aquatic invasive species (AIS) restrictions is an interesting problem. Technically, clean/drain/dry or decontamination to prevent the spread of aquatic invasive species is already required for "aquatic conveyances" by the AIS statute - chapter 77.135 RCW - however there are no rules specifying requirements for suction dredgers. Also, most of the mineral prospecting non-profit organizations (clubs) having suction dredge members dredging in Washington require their members to take measures to prevent the spread of aquatic invasive species, with consequences for not doing so.

One alternative is to continue to include provisions in HPAs that require inspection and decontamination for HPA permittees without adding this requirement in the HPA rules.

Another alternative is to promulgate rules for this requirement in chapter 220-640 WAC invasive species rules instead of in chapter 220-660 WAC hydraulic code rules. The benefit to this approach is that all invasive species rules remain together in the same WAC section, potentially avoiding inconsistent application of the responsibilities conveyed by chapter 77.135 RCW. On the other hand, the advantage of including these requirements with suction dredging rules in chapter 220-660 WAC is that all HPA-related suction dredge rules occur in the same WAC section, potentially reducing confusion for permittees.

A third alternative is to rely on prospecting club bylaws and enforcement of those bylaws. Club members argue that violating club bylaws carries a heavier consequence to members than

⁶ Known dredgers include persons holding HPAs for suction dredging, as well as club officers and others who are active participants in WDFW HPA stakeholder activities and have made their suction dredging interests known to us.

noncompliance with state rules. However, clubs might not apply the requirements uniformly, and non-club members would not know the requirements if WDFW did not include them in rule.

4.3 Consequences of not adopting the rule

By not adopting the rule, conditions with respect to suction dredge permitting under the hydraulic code rules would remain as they are today. That is, persons wishing to conduct suction dredging and willing to comply with the restrictions and time periods identified in the Gold and Fish pamphlet would continue to suction dredge under the pamphlet. Persons wishing for exceptions to pamphlet equipment, timing, and operational provisions would be required to apply for a standard HPA, as they are today.

WDFW would continue to be unable to account for the numbers and locations of suction dredging activity in Washington. As noted above, WDFW is unable to account for numbers, times, and locations of suction dredging activity conducted under the Gold and Fish pamphlet. This also means the contribution of out-of-state dredgers to Washington suction dredging effort remains unknown. WDFW is increasingly concerned that inability to assess dredging pressure poses a risk to fish life in high-effort locations.

There would be no change in the overall implementation of measures to prevent the spread of aquatic invasive species. Non-club-member dredgers would continue to be unaware of aquatic invasive species clean/drain/dry or decontamination requirements, and dredgers entering Washington from out of state would remain confused about whether inspections are needed when they enter Washington. More people moving between water bodies without taking AIS precautions increases the risk of introduction of aquatic invasive species into waters, increasing risk to native fish species.

SECTION 5 Involving stakeholders in rule development

WDFW mounted a significant outreach effort during the preproposal period in the summer and fall of 2018 to get input about how the rule should be written and what the impacts would be from meeting the rule making objectives. WDFW also launched a web page⁷ with information on rule making and a way for people to track rule making progress. An email address⁸ was activated for people to submit preproposal comments and formal public comments. Table 2 includes a list of outreach events and milestones during the preproposal period of rule development. Following the table are discussions of key stakeholder elements.

⁷ <https://wdfw.wa.gov/licensing/hpa/rulemaking/>

⁸ HPARules@dfw.wa.gov

Table 2 Stakeholder contact events

Date(s)	Person(s)	Activity
7/9/2018	“Agency family” including Washington Departments of Natural Resources and Ecology U.S. Fish and Wildlife Service National Marine Fisheries Service U.S. Army Corps of Engineers U.S. Forest Service	WDFW presented the general objectives for rule making and sought feedback from federal agencies on how WDFW can construct proposed rules that meet WDFW needs while avoiding impact to activities and permitting by other agencies. Refer to section 8.4.1 for more on coordination with state and federal agencies.
7/13/2018	News Release	Advertising public meeting dates, purpose, and locations
7/16/2018 - Wenatchee 7/17/2018 - Spokane 7/19/2018 - Olympia 7/25/2018 - Everett	Public	Public listening sessions were held. Refer to section 5.1 for more information.
7/18/2018	Chelan County Natural Resources Department Habitat Subcommittee	WDFW presented the general objectives and timeline for rule making, answered questions, and sought feedback from members.
8/1/2018	Upper Columbia United Tribes	WDFW presented the general objectives for rule making and sought feedback from tribal representatives. See section 8.4.2 for more about discussions with tribal representatives.
8/2/2018	Yakama Nation staff	
8/9/2018	Northwest Indian Fisheries Commission	
8/8/2018 - Olympia 9/12/2018 - Olympia	Ad hoc stakeholder work group	WDFW assembled an ad hoc working group to help the WDFW develop proposed rules and discuss how rules could be crafted to meet the rule making objectives. Refer to section 5.2 for more information on this activity.
9/20/2018	Hydraulic Code Implementation Citizen Advisory Group	WDFW presented an update on the rule making process, a member presented a video demonstration of mineral prospecting work, and staff walked the group through pre-draft proposed rules in order to get comments on the proposals. The group conveyed a majority statement to WDFW requesting an expansion of the scope of rule making.
9/10/2018 9/12/2018	Washington Department of Revenue	Contacted Revenue Research and Fiscal Analysis Division for list of businesses registered under NAICS 2122 and contact information. Received list on 9/12. Refer to section 5.3 for more information about this topic.

Date(s)	Person(s)	Activity
9/19/2018	About 100 surveys distributed to individuals and clubs.	Survey 1: WDFW distributed a survey to mineral prospectors to collect data about current levels of suction dredge mining activity, the time it will take for miners to complete an application (under new rules), and other information about mineral prospecting costs and benefits. See section 5.4 for a discussion of the survey and results.
10/4/2018 - Tacoma 10/12/2018 - Everett 10/15/2018 - Puyallup	Washington Prospectors Mining Association South Sound Chapter Gold Prospectors of Association of America Everett Chapter Bedrock Prospectors	Staff met with three mining non-profit associations/clubs or club chapters at their regular monthly meetings to present information about the proposed rule changes, respond to questions, explain the mineral prospector survey and request survey participation.
10/8/2018	Businesses identified by Department of Revenue under NAICS code 2122	"2122 Survey:" Distributed a survey to businesses identified under NAICS industry code 2122. Refer to section 5.3 for a discussion of this survey and results.
1/4/2019	Distributed Survey 2 to mineral prospectors receiving the first survey and to current suction dredge HPA holders.	Survey 2: WDFW distributed a second survey to mineral prospectors to collect data about costs to comply with aspects of proposed rules. See section 5.5 for a discussion of the survey and results.

5.1 Public listening sessions

WDFW held four public listening sessions around the state that were attended by mineral prospectors, mining group representatives, anglers, landowners, representatives of federal and state agencies, and environmental organizations. The sessions were announced through a media release distributed July 13, 2018, and turnout was diverse at all of the meetings. WDFW presented the general objectives and timeline for rule making, answered questions, and sought feedback from attendees about how rules can be crafted to meet the rule making objectives. A summary of input received at the four listening sessions is available on request.

5.2 Ad hoc stakeholder work group

WDFW assembled an ad hoc working group to help the WDFW develop proposed rules, discuss how rules could be crafted to meet the rule making objectives, and assist in the assessment of the costs of the proposed rule. The working group included seven miners (including a representative of Citizens Alliance for Property Rights) and eight people representing other interests (Trout Unlimited, Fish Not Gold, Cascade Forest Conservancy, Snoqualmie Tribe, and Clark-Skamania Flyfishers). Two six-hour meetings were held, facilitated by Rachel Aronson of Triangle Associates.

The dynamics of the group did not allow for extensive exploration of the costs of the proposed rule. WDFW staff worked with the miner group to determine ways to shape the application and reporting requirements to minimize the impact to those affected by the new rules.

A summary of these sessions is available on request.

5.3 “2122 Survey” - Surveying businesses identified with the metal ore mining industry

When WDFW began to develop the documents necessary to accompany rule change proposals, we considered how we might get information from miners and mining businesses about the economic impacts of the proposed rule. First, we needed to identify miners and mining businesses to whom we could reach out for that information. Washington Department of Revenue (Revenue) maintains a database of businesses⁹ that are registered with Revenue or the Secretary of State and WDFW requested a listing and contact information from Revenue for North American Industry Classification System (NAICS) code 2122 businesses - businesses involved in metal ore mining.

We received a list of nineteen businesses from Revenue on September 12, 2018. The records request returned businesses in categories including corporations, limited liability companies or partnerships, and sole proprietorships. We developed a survey to determine whether the businesses on the list conduct suction dredging that is currently regulated under the Gold and Fish Pamphlet or under standard HPA under rules in WAC 220-660-300¹⁰ and, if so, to get information about number of employees and payroll, mining-related income, and the business costs they would associate with compliance with the rule proposals.

WDFW mailed certified letters on October 8, 2018 to each of the nineteen businesses asking them to return a survey with questions about their business to help us determine whether and how they would be impacted by the rule proposals. We included pre-paid return envelopes for the surveys and mailed the letters with certified letter tracking and return receipts.

Each of the nineteen mailings has been accounted for. Six were undeliverable, either because the address is no longer valid or because no one was able to accept the letter; eleven were received by the business but they have not responded; and two survey responses were received by WDFW indicating the businesses are not currently regulated under WAC 220-660-300.

⁹ Department of Licensing: <http://www.dol.wa.gov/business/checkstatus.html?hcwp>
Department of Revenue: https://secure.dor.wa.gov/gteunauth/_/#1

¹⁰ A business that conducts or has conducted suction dredging activity under WAC 220-660-300 is a business that might be impacted by the rule change proposal under proposed WAC section 220-660-305. A business that does not conduct suction dredging activity, or conducts suction dredging under a different HPA rule section, would not be impacted by the rule proposal.

Persons and businesses that conduct industrial- or commercial-scale mining generally don't use suction dredges or are regulated under state or federal laws and rules administered by other agencies, such as Washington Departments of Natural Resources or Ecology and/or federal industrial mining regulators. These individuals and businesses might identify themselves as gold or metal ore mining businesses but are typically not regulated by chapter 220-660-300 WAC. If these businesses conduct their work in or near water, they might require an HPA issued under a different section of HPA rule.

Of the NAICS 2122 businesses we contacted, none responded letting us know they are required to comply with WAC 220-660-300. Because of this, WDFW determined that even though NAICS code 2122 seems to be most closely aligned with the business activity regulated by WDFW, data associated with this code did not identify affected businesses.

Because of this, WDFW embarked on further research to identify stakeholders with which to connect. For more about this research, refer to the 2019 HPA Suction Dredge Rule Making Small Business Economic Impact Statement, available at: <https://wdfw.wa.gov/licensing/hpa/rulemaking/>.

5.4 Survey 1 - Collect data on effort and costs

WDFW developed a survey to share primarily among known suction dredgers to attempt to answer some of the economic impact questions. In September 2018, WDFW distributed about 100 surveys to collect data about current levels of suction dredge mining activity. Surveys were emailed to miners who attended public listening sessions in 2016 and in summer 2018 (and who provided their email addresses to WDFW). We also sent emails to mining organization officers (whose email addresses were found online) requesting that the officers distribute the survey to organization members (industry representatives report over 1,100 active miners in seven non-profit mining organizations¹¹). Email distribution totaled 46. In addition, staff handed out about 50 surveys at three organization meetings attended in October 2018. The survey was also available online via Survey Monkey and open from September 19 through October 31, 2018. Most who participated in the survey submitted their responses using the online version.

The surveys requested such information as the amount of time it would take miners to complete the HPA application (under the new rules), number of days and number of different sites mined, costs to go suction dredging, and information about payroll and income for mineral prospecting businesses.

WDFW received nineteen survey responses. Of the nineteen respondents, eleven provided hours to apply, number of sites, number of days, costs to report, and costs to suction dredge; the other responses were blank or only included a comment. None of the respondents indicated they own businesses engaged in suction dredging, and no information on business costs, payroll, or business income was received from respondents.

In order to promote the survey, WDFW staff attended three mining organization meetings (Table 2). Staff explained the proposed rule changes to club members, answered questions, and explained the surveys and the importance of survey data in rule development.

Data from Survey 1 that are used for the cost/benefit analysis include the costs to go suction dredging and value of gold retrieved (Table 3). Costs provided in response to Survey 1 do not include the costs to comply with the rule proposals. We use the median of responses (the middle value in the list of responses) because the data received contained outliers that would influence a standard mean or average (sum of responses divided by the number of responses).

¹¹ Wheeler, S. and W.S. Brown. October and November 2017. Personal Communications.

Table 3 Survey 1 responses for costs to go suction dredging per year and value of gold retrieved

Statistic	Annual costs to go dredging*	Value of gold retrieved**
Median	\$1,028	\$989
Minimum response	\$180	\$79
Maximum response	\$6,700	\$4,911

* Includes transportation, food, lodging, fuel for dredge, and miscellaneous costs such as National Forest passes and costs to maintain federal mining claims.

** From <https://goldprice.org/> gold spot price at \$39.48 U.S. dollars per gram, accessed on Wednesday, October 24, 2018 at 10am PDT.

5.5 Survey 2 - costs to comply with proposed rules

WDFW determined that a broader survey distribution approach was necessary, with survey questions focusing on the data needed to determine costs to comply with the proposed rule. This second survey was distributed on January 4, 2019. This survey was sent to the same email list as the initial survey, including club officers for distribution to club members, and was also sent to every suction dredger having an HPA who had provided WDFW with an email address. A total of 154 surveys were directly emailed to HPA holders, individual mineral prospectors, and representatives of mineral prospecting interests. As before, club officers shared the surveys with club members. WDFW assumed this approach would be more likely than the previous survey to reach businesses required to comply with suction dredging rules in order to conduct their business activities.

Survey 2 results provide most of the data for the 2019 HPA Suction Dredge Rule Making Small Business Economic Impact Statement and the cost/benefit analysis presented in Section 6.

5.5.1 Summary of Survey 2 responses

WDFW surveyed suction dredgers to determine what they think their costs will be to comply with the rule proposals. A summary of twenty-five Survey 2 responses received through January 31, 2019 is provided on Table 4. We use the median of responses (the middle value in the list of responses) because the data received contained outliers that would influence a standard mean or average (sum of responses divided by the number of responses).

We asked survey respondents to provide costs to comply with the “*Suction Dredge HPA-Required Rule*,” the “*Aquatic Invasive Species Rule*,” and the “*Annual Reporting Rule*.” Cost categories on the survey included equipment, supplies, labor, professional services, administrative costs, and “other” costs. We did not ask respondents to explain what they included for each cost estimate. Most respondents left answers blank if the question did not apply to them, they did not know how to respond, or did not wish to respond.

Table 4 Median suction dredge survey responses - from Survey 2 (January 2019)

Item	Median Responses	
Survey respondents	25 total returned surveys	
Time to apply for an HPA	2 hours 15 minutes	
Number of sites per year	4.5 sites	
Number of days suction dredging per year	28 days	
Time to decontaminate (Aquatic Invasive Species)	2 hours 30 minutes	
Time to record and submit reports	4 hours	
Median costs (& sum of jobs lost) to comply with “Suction Dredge HPA-Required Rule”	\$784	(6 jobs lost)
Median costs (& sum of jobs lost) to comply with “Aquatic Invasive Species Rule”	\$500	(4 jobs lost)
Median costs (& sum of jobs lost) to comply with “Annual Reporting Rule”	\$695	(6 jobs lost)
Percent of respondents who performed AIS decontamination in 2018	84%	
Own a business for which a written suction dredge HPA would be required	1 person responded “yes”	
Number of employees	[no responses]	
Average annual payroll	[no responses]	
Average annual income/revenue	[no responses]	
Costs to comply would reduce income	1 person responded “yes”	
Median annual value of minerals	\$300	

SECTION 6: Cost-Benefit Analysis

RCW 34.05.328 (1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented;

6.1 Which rules require analysis?

In order to implement the Commission’s directive, WDFW developed rule proposals for WAC sections 220-660-030 (Definitions) to refine and clarify the suction dredging definitions, and 220-660-300 (Mineral Prospecting) to remove suction dredging as an authorized activity under the Gold and Fish Pamphlet. Changes in these two sections correct errors and clarify language without changing the effect of that language and do not create compliance requirements for suction dredgers; because of this, these sections are not discussed further in this analysis.

A proposed new section 220-660-305 contains new rules for suction dredging that impose requirements that miners must comply with. There are three compliance aspects we will analyze (Table 5).

Table 5 Compliance requirements of proposed WAC 220-660-305

Type of Requirement	Requirement	WAC	Change Number
<i>“Suction Dredge HPA Required Rule”</i>	All suction dredgers are required to apply for a standard written HPA.	WAC 220-660-305(3)(a)	Change 17
<i>“Aquatic Invasive Species Rule”</i>	All suction dredge equipment that has been used in waters outside of Washington State must be inspected for the presence of aquatic invasive species prior to use in state waters; Suction dredgers are required to implement methods to prevent the spread of aquatic invasive species.	WAC 220-660-305(4)	Change 19
<i>“Annual Reporting Rule”</i>	All suction dredge owners are required to submit an annual activity report.	WAC 220-660-305(8)	Change 24

6.2 Key variables to determine costs

Here are some of the challenges WDFW faces when estimating costs and benefits attributable to these rule changes:

- **WDFW does not know how many persons suction dredge in Washington:** No application is required to work under the Gold and Fish Pamphlet, so WDFW doesn’t have direct data on how many dredges are operating statewide and where or when they are being operated. Not only is collecting this information one of the objectives of rule making, this information is important in assessing how many persons will submit suction dredge applications. See section 6.2.1 for more discussion of this problem.
- **WDFW doesn’t know how many different sites each dredger uses each year, or their locations.** Results of the second survey showed a range of 1 to 25 sites mined each year, and we use the median of 4.5 sites (from Table 4) for this analysis.
- **WDFW is unsure how many suction dredgers are already implementing measures to prevent the spread of aquatic invasive species.** Eighty-four percent of respondents to Survey 2 indicate they implemented decontamination measures in 2018 (from Table 4). Nevertheless, we assume for this analysis that all suction dredgers will be implementing aquatic invasive species clean/drain/dry or decontamination procedures for the first time

upon implementation of the proposed rules, and we use median results from Survey 2 to complete cost/benefit calculations.

- **Suction dredging effort each year varies widely between individuals.** This conclusion is supported by responses to Survey 2, which showed a range of 5 to 120 days dredged each year at 1 to 25 sites. Because of this wide range, we use the median Survey 2 responses to inform the cost/benefit analysis.

6.2.1 How many people?

WDFW assumes that the majority of suction dredging is conducted under existing Gold and Fish pamphlet rules. Persons wishing to prospect in streams without authorized work times¹² or vary any of the pamphlet requirements such as equipment limits or work window timing are required to submit standard applications under current rules. WDFW HPA application data show that 271 suction dredge HPAs are currently active¹³. These permits are held by 159 individuals.

Because WDFW lacks a basis on which to estimate the number of persons who suction dredge in Washington, we considered a number of estimation methods to determine the number of suction dredgers that would be required to comply with the proposed rule.

- Estimates provided by the mining community indicate that there are 1,140 active miners in Washington¹⁴.
- Miners indicated there are 130 suction dredges among club members in Washington. However, 159 suction dredgers already hold HPAs for suction dredging or suction/dredge/highbanker combination equipment use.
- WDFW also looked at the number of federal mining claims held in Washington (346¹⁵) in an attempt to deduce how many claim holders might be suction dredgers.
- Both WDFW and miner representatives made estimates during the preproposal period for the number of applications that could be expected under the new rules; those estimates ranged from 660 to 10,000.

The bottom line is that WDFW has very little solid information on which to base effort estimates. We used one “solid” data element - the number of active miners provided by miner representatives - and cut that in half to estimate the number of persons who would use suction dredge or suction dredge/highbanker combination equipment for mineral prospecting. The result - 1,140 divided by 2 equals 570 - seems reasonable because it’s neither outrageously high nor too low to risk underestimating costs of the proposal. WDFW recognizes that by using the estimate of 570 suction dredgers (or any other estimate) we could underestimate or overestimate the costs and benefits of the proposal. The reader should be aware of this.

¹² Streams identified as “Submit Application” on the Authorized Work Times table provided in the Gold and Fish pamphlet and as Table 1 in WAC 220-660-300.

¹³ Data collected on October 19, 2018 for the period from 7/17/2018 through 10/8/2018. Does not include permits that are no longer active nor applications for permits not yet issued as of 10/19/2018.

¹⁴ Wheeler, S. and W.S. Brown. October and November 2017. Personal Communication.

¹⁵ Reported by U.S. Bureau of Land Management for 2017.

WDFW estimates 570 suction dredgers will need to comply with the proposed rules.

WDFW assumes that all 570 persons will need to apply for suction dredging permits under the proposal. The 159 persons who currently have HPAs to operate with exceptions to pamphlet provisions will still need additional HPAs to operate in times and areas when they previously operated under the pamphlet.

We don't know how many persons would decide not to apply or how many persons would decide to apply who have never mined before, so did not attempt to estimate either number.

6.2.2 How many sites and applications?

Survey 2 respondents indicate a median of 4.5 sites per person, so WDFW assumes only one multi-site HPA will be needed per person - a multi-site HPA allows up to 5 sites pursuant to WAC 220-660-050(3)(b)(ii)(A)(III).

6.4 Costs to comply

WDFW offers two estimates for costs to comply for each of the proposals. The first ("*Direct survey results*") uses Survey 2 responses for costs to comply and the second method ("*Hourly-cost method*") uses estimates based on Survey 2 responses for hours per task and a cost per hour established by WDFW.

Because there are no industry records of annual payroll to help us estimate costs per hour for the suction dredging industry, WDFW referenced mining labor data provided by the Bureau of Labor Statistics¹⁶. We chose the worker type we think mostly closely matches the work of a suction dredger - Continuous Mining Machine Operator - which earned an average hourly wage of \$28.19 in 2017. We are using this figure to estimate hourly costs per individual for the time taken to comply with the proposals.

Most HPAs are issued for a 5-year period pursuant to WAC 220-660-050(14)(a). Pursuant to WAC 220-660-050(b)(ii)(A), a standard multi-site HPA can authorize work at multiple project sites if: (I) All project sites are within the same water resource inventory area (WRIA) or tidal reference area; (II) The primary hydraulic project is the same at each site so there is little variability in HPA provisions across all sites; and (III) Work will be conducted at no more than five project sites to ensure department staff has sufficient time to conduct site reviews.

6.4.1 Costs to comply with the Suction Dredge HPA-Required Rule

Each person wishing to lawfully conduct suction dredging in Washington State will be required to obtain an HPA. A person is not required to apply for an HPA; however, an HPA is required if a person wishes to conduct the activity. The median response for number of sites was 4.5, so we are assuming for these analyses that only one HPA is needed per person. WDFW also assumes

¹⁶ Bureau of Labor Statistics. Industries at a Glance Statistics for Metals Ore Mining NAICS 2122. Occupation: Continuous Mining Machine Operator (a worker who extracts raw materials from the ground for commercial and other uses by operating self-propelled mining machines that rip coal, metal and nonmetal ores, rock, stone, or sand from the mine face and load it onto conveyors or into shuttle cars in a continuous operation.) Downloaded October 25, 2018 from https://www.bls.gov/oes/current/naics4_212200.htm#47-0000. Note that the machine referenced for this occupation is nothing like the suction dredge equipment used in Washington, but it was the closest occupation we could find for the U.S. metal ore mining industry as a whole.

that each of those HPAs would be issued for a 5-year period as allowed under WAC 220-660-050(14)(a).

There is no application fee, so there is no cost to apply for an HPA other than the labor costs estimated below. WDFW's HPA applications can be completed online using a home computer with an internet connection. Computers and internet connectivity are available for free to the public at most libraries.

Alternatively, a person can download, print (3 pages @ \$.42 per page at Office Depot online), and fill out an application on paper using a \$2 pen, and mail it to WDFW using a \$.10 envelope and \$.55 stamp (total of \$3.91 for supplies and mailing). These costs are not necessary to comply with the proposal.

Professional services are not expected to be needed to aid a person to apply for an HPA. A person needing help with the application can get help from WDFW's HPA Regulatory Services staff during normal business hours.

[Direct survey results](#)

The median of survey responses was \$784 to comply with the **Suction Dredge HPA-Required Rule**. If each permit is valid for 5 years, and each person needs only one permit, then the annual cost per person to complete the application process would be \$784 divided by 5, or \$156.80 per year.

[Hourly-cost method](#)

If a person takes 2 hours and 15 minutes (median survey response) to complete an HPA application, that costs \$63.43 in labor. If each HPA is valid for 5 years, and each person needs only one HPA, then the annual cost per person to complete the application process would be \$63.43 divided by 5, or \$12.69 per year.

6.4.2 Costs to comply with the Aquatic Invasive Species Rule

New rules are proposed specifying that all suction dredge equipment that has been used in waters outside of Washington State must be inspected for the presence of aquatic invasive species. Further, all suction dredge equipment used in any water of the state must be decontaminated according to department specification prior to use in a different water of the state.

"Clean-Drain-Dry" decontamination steps published on the WDFW web site can be undertaken by the average person using supplies commonly available: hot water, brushes, and household cleaning liquid¹⁷. Dredgers report that cleaning and drying out their equipment is a regular activity associated with dredging because they want to ensure that all the gold collected by the equipment is recovered. Eighty-four percent of survey respondents indicated they took decontamination steps in 2018.

The proposed rules also require persons bringing a suction dredge into Washington from out-of-state to have their equipment inspected for the presence of aquatic invasive species prior to using that equipment to suction dredge in Washington. Inspections for the presence of aquatic invasive species are available at major highway entry points into the state, so persons bringing a suction dredge into Washington can arrange their entry so they are inspected as they cross the state line.

¹⁷ <https://wdfw.wa.gov/ais/youcanhelp.html>

Certificates of inspection are available on request at the time the inspection is completed. Inspections and certificates are provided at no cost.

[Direct survey results](#)

The median survey response is \$500 per year to comply with the proposed aquatic invasive species decontamination rule.

[Hourly-cost method](#)

If a person takes 2 hours and 30 minutes (median survey response) to comply with proposed aquatic invasive species decontamination rule, that costs \$70.47 in labor.

6.4.3 Costs to comply with the Annual Reporting Rule

The proposal contains a reporting requirement indicating that permit holders must report annually to WDFW regarding the date, amount, type, and location of any suction dredging activity conducted during the preceding calendar year for which the HPA is in effect.

[Direct survey results](#)

The median survey response is \$695 to create and return annual activity reports under the proposal.

[Hourly-cost method](#)

If a person takes 4 hours (median survey response) to complete and submit an annual report, that costs \$112.76 in labor.

6.5 Income or Revenue

6.5.1 Lost income or revenue

No respondents from Survey 2 provided annual revenue or income information. One respondent indicated that the costs to comply would reduce their revenue or income, but did not provide any details or estimates for the amount of the reduction.

6.5.2 Value of gold recovered

Anecdotal estimates provided by the mining community indicate that miners recover about 3 grams of gold on average per day of suction dredging activity¹⁸. That means a miner could accrue 84 grams of gold in 28 dredging days (median from Table 3) in a year, which would be worth about \$3,494 at \$41.59 per gram¹⁹. The eleven respondents to Survey 1 reported a median of 25 grams recovered annually, for a value²⁰ of \$989 annually (range of \$78.96 to \$4,911 from Table 3). The median response from Survey 2 was \$300 average annual value of gold recovered (Table 4); Survey 2 responses ranged from \$5 to \$5,000 per year in gold recovered. Although one Survey 2

¹⁸ Wheeler, S. and W.S. Brown. October and November 2017. Personal communication.

¹⁹ <https://goldprice.org/> gold spot price at \$41.59 U.S. dollars per gram. Accessed on January 16, 2019 at 5:15pm Eastern Standard Time.

²⁰ Per Table 3, which reports October 24, 2018 gold spot price at \$39.48 U.S. dollars per gram.

respondent indicated revenue would be lost because of the costs to comply with the proposed rules, the respondent did not estimate the losses.

6.5.3 Net costs for the suction dredging activity

Average annual costs to suction dredge were only asked on Survey 1. The median Survey 1 response for annual cost to suction dredge, excluding costs of the dredge and for complying with the proposed rule, was \$1,028 with a range from \$180 to \$6,700 per year.

Based on average cost to dredge of \$1,028 plus the costs to comply with the new rule from Table 4, and a median annual gold revenue of \$989 (Survey 1 from Table 3) to \$300 (Survey 2 from Table 4) to \$3,494 (estimate based on miner data), we conclude that most miners are spending more to engage in the suction dredging activity than they recover in the value of gold retrieved.

Survey respondents did not report income received from selling gold, guiding suction dredge trips, or selling concentrate obtained by suction dredging, so these forms of income are not included in the assessment above.

6.6 Other potential costs

6.6.1 Costs for record storage

Keeping records of a person's HPA applications and HPA permits could be very low cost depending upon the method used to keep the records. A typical application document is three pages long, and a typical HPA for five locations is seven pages long. A person storing 1 application, 1 HPA document, and a reporting document per year for a 5-year permit would be storing or printing up to 15 pages. A file folder can be purchased for \$.39 and copying/printing is \$.42 per page at Office Depot online. So paper copies and file storage would cost \$6.69 for five years or \$1.34 per year. Storing these documents on an electronic device such as a computer or cell phone is virtually free. Storing on a cell phone is a particularly attractive option because electronic versions of an HPA are now²¹ allowed on the work site (whereas formerly a paper copy was required).

6.6.2 Other potential costs

Other potential costs of implementing the proposed rules include loss of mining time because of the delay in receiving an HPA permit. Miners frequently expressed the concern that WDFW will not have the staff capacity to handle the processing of so many new applications at one time and will therefore exceed the 45-day HPA processing period for many applicants. Although this is an acknowledged potential cost, we can't know the magnitude of the problem until applications begin to be submitted. Therefore, we did not attempt to quantify this cost.

6.7 Benefits of Proposals

6.7.1 Benefits of Suction Dredge HPA-Required Rule and Annual Reporting Rule

The primary benefit of the proposal is that WDFW will have better information on which to base future regulatory decisions. Requiring HPAs and annual reporting will help us determine the location, scope, and scale of suction dredging in Washington, which would improve WDFW's ability to assess the potential risks to fish life, including potential cumulative impacts, and to

²¹ This 2018 rule change became effective on July 1, 2018.

target inspections to ensure dredgers are complying with HPA provisions. Requiring applications will also help us determine the number of out-of-state suction dredgers entering Washington to conduct this activity, which will help us determine whether changes in regulation of suction dredging in neighboring states affects the effort in Washington.

6.7.2 Benefits of Aquatic Invasive Species Rule

The rules would increase compliance with aquatic invasive species requirements, thus reducing the risk of spreading aquatic invasive species to and within Washington. Club and non-club-member dredgers alike would better appreciate the need for aquatic invasive species clean/drain/dry or decontamination requirements, and dredgers entering Washington from out of state would understand inspections are needed when they enter Washington. Fewer people would be moving between water bodies without taking AIS precautions. These rules are important to the protection of fish life because they raise awareness of the potential for suction dredging equipment to transmit aquatic invasive species. The benefits of awareness and compliance with aquatic invasive species protections are significant at the individual level because it only takes one carrier to infest a water body. Costs of aquatic invasive species infestations on fish life and fish habitat could be devastating. The benefits of avoiding this devastation are unquantifiable.

6.8 Reducing costs for those who must comply

WDFW has taken several steps to reduce costs to individuals and businesses:

- WDFW proposes to continue to use a simplified HPA application form, which is shorter than the Joint Aquatic Resource Permit Application form while still collecting all the information necessary to evaluate an HPA application. Use of the simplified form is an important component in reducing application costs for individuals and businesses.
- The Commission limited the rule change to suction dredge equipment and methods, thus reducing the proportion of the regulated community required to comply with the proposal.
- After considering a more extensive annual reporting scheme, WDFW reduced the frequency with which reports were to be submitted to WDFW from reporting daily or post-trip to annually.

Additional steps WDFW plans to take to minimize costs to those who must comply with the new rules include providing training materials to individuals and mining clubs for how to apply for an HPA and comply with reporting requirements. WDFW will also work to implement an online mapping tool to help applicants identify the specific site of their project, and an online annual reporting mechanism and other methods that minimize the impact of the requirement to file annual activity reports.

6.9 Recap of costs and benefits and determination

RCW 34.05.328 (1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented

Costs to comply with the proposal are summarized on Table 6.

Table 6 Average costs and benefits of the proposal

Costs Summary (discussion section)	Per person per year (whole dollars)	All 570 applicants per year (whole dollars)
“Suction Dredge HPA Required Rule” (6.4.1)	\$13 to \$157	\$7,410 to \$89,490
“Aquatic Invasive Species Rule” (6.4.2)	\$70 to \$500	\$39,900 to \$285,000
“Annual Reporting Rule” (6.4.3)	\$113 to \$695	\$64,410 to \$396,150
Written application supply costs (6.4.1)	\$4	\$2,280
Recordkeeping (6.6.1)	\$1	\$570
Lost revenue	See discussion in section 6.5	
Total Costs	\$201 to \$1,357	\$114,570 to \$773,490
Rule	Benefits summary	
“Suction Dredge HPA Required Rule”	Necessary to evaluate numbers and locations of suction dredging activity	
“Aquatic Invasive Species Rule”	Necessary to reduce risk of spreading aquatic invasive species into and around Washington	
“Annual Reporting Rule”	Necessary to evaluate amount of dredging and whether there are unaddressed impacts to fish life from this activity	

WDFW determines that the benefits of the proposed rules outweigh the costs because 1) understanding the scope and scale of suction dredging activities in Washington is necessary to improve WDFW’s ability to assess the potential risks to fish life, including potential cumulative impacts, and 2) because the rule proposals are intended to avoid the devastation of aquatic invasive species infestations on fish life and fish habitat.

SECTION 7: Least Burdensome Alternative

RCW 34.05.328 (1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b) [Section 4 of this document], (c) [Notification in CR-102], and (d) [Section 6 of this document] of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection [i.e. for the statute being implemented];

7.1 Introduction

In order to propose and adopt significant legislative rules, WDFW must evaluate alternative versions of the rule. Once this analysis is complete WDFW must determine that the rule proposed for adoption is the least burdensome version of the rule that will achieve the goals and objectives

of the authorizing statute(s) as discussed in section 3. Alternatives to rule making are addressed in section 4.2 and consequences of not adopting the proposal are included in section 4.3.

7.2 Alternatives considered

Integral to the Fish and Wildlife Commission’s directive was one Commissioner’s instruction to staff that the rule proposals minimize impacts of the new requirements on suction dredgers. In that spirit, WDFW has consulted with miners through every step of proposed rule development to identify a set of proposed rules that meet the directive of the Commission in the manner least burdensome to miners.

WDFW also conducted significant outreach during the preproposal period to get comments from a wide spectrum of interested people. WDFW received many comments about the development of rules to meet the directive by the Fish and Wildlife Commission. A number of those suggestions have been incorporated into the rule proposals, however a large number of recommendations were not incorporated. Table 7 summarizes comments or alternatives WDFW heard during the preproposal period and responses relating to whether the alternative rule content being suggested meets the goals and objectives of the hydraulic code. The term “*least burdensome alternative*,” when used within this table and subsequently, means “*least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under chapters 77.55 and 77.135 RCW.*”

Table 7 Least Burdensome analysis of alternatives suggested by participants in preproposal discussions

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
Application Alternatives			
Require suction dredgers to use the standard HPA application or a Joint Aquatic Resources Permit Application (JARPA).	None	An application form must contain the information needed to assess potential impacts and provision the HPA to adequately protect fish life. Alternative applications types can achieve this objective more efficiently and are a least burdensome alternative.	No Rule Change
Individual HPAs aren’t needed in order to protect fish life from suction dredging activity. The Gold and Fish pamphlet provides sufficient protection without burdening miners with applications and permits.	WAC 220-660-305(3)(a) Before conducting any suction dredging activity, a person must obtain the approval of the department through the issuance of a standard single site written HPA or standard multisite written	See section 1.1, which explains why the proposed rule change is needed to better assess the risk to fish life, target compliance inspections, and prevent the spread of aquatic invasive species. Issuing standard HPAs will allow us to conduct	Proposed Rule Change

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
<p>Issue statewide HPAs if applicant agrees to adhere to the provisions and timing restrictions that currently apply under the Gold and Fish pamphlet.</p> <p>Do not issue statewide or other similar broad-scale HPAs.</p>	<p>HPA as described in WAC 220-660-050...</p>	<p>monitoring so WDFW can determine where, when, and how much suction dredging is occurring statewide. There is no way to ensure the Gold and Fish pamphlet holders are complying with requirements. The proposed rule change is the least burdensome alternative.</p>	
<p>Include all motorized methods under the new application requirements.</p>	<p>None</p>	<p>The only motorized method the Commission is proposing to remove from the pamphlet is suction dredging. Additional motorized methods might be removed in the future if new information supports this.</p> <p>Removing suction dredging only at this time is the least burdensome alternative.</p>	<p>No Rule Change</p>
<p>Require each suction dredge application to include §303(d) and TMDL information from WA Dept. of Ecology.</p> <p>Require suction dredgers to show proof of application for National Pollution Discharges Elimination System permit under CWA regulations, Aquatic Lands use authorization, and U.S. Forest Service Notice of Intent.</p> <p>Require suction dredgers to provide proof of contact with Washington Department of Archaeology and Historic Preservation and tribes regarding compliance with cultural resources rules.</p>	<p>None</p>	<p>Requiring compliance with other state and federal laws as part of a complete application is not authorized by chapter 77.55 RCW.</p>	<p>No Rule Change</p>

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
<p>Require suction dredgers to provide proof of landowner permission to conduct the suction dredging activity.</p>	<p>None</p>	<p>The HPA also does not convey permission to use public or private property to conduct the project. Applicants must seek permission to use property from the land owner, and this is not an HPA issue.</p> <p>WDFW requires, as part of a complete application, landowner signature granting permission for WDFW staff to access the property (such a signature is not needed for public property because WDFW has agreements with public landowners granting permission).</p> <p>WDFW staff access to land on which a project is being conducted is needed so staff can provide technical assistance to, and conduct inspections on, the hydraulic project.</p> <p>The project proponent has the responsibility to ensure they have landowner permission to conduct the project - this is a matter between the project proponent and landowner - the hydraulic code does not regulate this. Therefore, requiring landowner permission (for the project proponent to conduct the project) before an HPA can be issued is burdensome. The status quo is the least burdensome alternative.</p>	<p>No Rule Change</p>
<p>In the permit applications the applicant shall describe access methods for delivering suction dredge to water. Riparian vegetation</p>	<p>WAC 220-660-305(5)(m) A person may not undermine, move, or disturb large woody material embedded in the</p>	<p>These are current rules in WAC 220-660-300 that are being brought over into the new section.</p>	<p>Proposed Rule Change</p>

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
<p>and woody debris within 200 feet of OHWM that will be altered in any way must be described, and any impacts shall be addressed in the mitigation plan.</p> <p>Require suction dredgers to provide a mitigation plan for restoring the site after work is complete.</p>	<p>slopes or located wholly or partially within the wetted perimeter...</p> <p>WAC 220-660-305(5)(n) A person may not undermine, cut, or disturb live, rooted woody vegetation of any kind.</p>	<p>The proposed rule change minimizes disturbance to riparian vegetation and woody debris.</p> <p>WAC 220-660-080(5)(a) states "The department may require a mitigation plan for projects with ongoing, complex, and experimental mitigation actions." Thus, a mitigation plan can be required if a permittee needed to offset unavoidable impacts per WAC 220-660-070 (1)(c)</p> <p>Maintaining the current rules in the new section is the least burdensome alternative.</p>	
<p>Require separate application for exceptions to Gold and Fish pamphlet rules.</p>	<p>None</p>	<p>220-660-300(3)(b) already requires this. Maintaining the current rule in the new section is the least burdensome alternative.</p>	<p>No Rule Change</p>
<p>Do not issue suction dredging HPAs to clubs.</p> <p>Issue HPAs to clubs on claim areas intended to be used only by club members.</p>	<p>None – However, some mining club officers have indicated they will require their members to obtain individual HPAs.</p>	<p>A non-profit organization falls under the definition of "person" in WAC 220-660-030(112), and no change is being proposed to this definition. WDFW doesn't have the statutory authority to ban clubs from applying for HPAs.</p> <p>WAC 220-660-030(112) "Person" means an applicant, authorized agent, permittee, or contractor. The term person includes an individual, a public or private entity, or organization.</p>	<p>No Rule change</p>
<p>Require all sites to be located using latitude-longitude coordinates.</p>	<p>None</p>	<p>A complete application for a standard HPA requires location information. The purpose of the location</p>	<p>No Rule Change</p>

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
		information is to inform the biologist where the work is occurring so they can adequately provision the HPA. The biologist may accept GPS coordinates, an address, a river mile or road mile, or a claim name. The current application requirement is the least burdensome alternative.	
<p>Require individual SEPA review of all suction dredging applications.</p> <p>Issue HPAs without restriction of amount of material moved.</p>	None	<p>State Environmental Policy Act (SEPA) compliance is already required. RCW 77.55.021(2)(d) requires all applications to have a notice of compliance with any applicable requirements of the SEPA, unless otherwise provided for.</p> <p>WDFW must comply with SEPA statutes and rules that specify the level of review required. If WDFW is the SEPA lead agency, the amount of material authorized to be moved is limited to less than 50 cubic yards [WAC 197-11-835(2)] unless the applicant completes a SEPA checklist and obtains a SEPA determination.</p>	No Rule Change
Aquatic Invasive Species Alternatives			
Aquatic invasive species decontamination measures aren't needed in rule because every mining club requires decontamination as a condition of the use of club resources.	WAC 220-660-305(4)(b) All suction dredge equipment used in any water of the state must be decontaminated according to department specification prior to use in a different water of the state.	WDFW acknowledges that mining clubs recognize the importance of preventing the spread of aquatic invasive species. However, not all dredgers belong to a club so the rule is needed. The proposed rule change reflects what the clubs already require and thus, is the least burdensome	Proposed Rule Change

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
		alternative that achieves protection of fish life.	
WDFW should inspect all motorized equipment for invasive species prior to entering Washington.	WAC 220-660-305(4)(a) All suction dredge equipment that has been used in waters outside of Washington state must be inspected for the presence of aquatic invasive species by an authorized department employee or agent before being used in waters of the state.	The proposed rule changes require that dredges coming in from out of state be inspected. This is the least burdensome alternative that protects fish life by preventing the spread of aquatic invasive species.	Proposed Rule Change
WDFW should inspect all motorized equipment for invasive species prior to starting work.	WAC 220-660-305(4)(b) All suction dredge equipment used in any water of the state must be decontaminated according to department specification prior to use in a different water of the state.	The statute for implementation of clean and drain requirements (Chapter 77.135 RCW) places this responsibility on the owner/operator of the aquatic conveyance or equipment involved. The proposed rule clarifies the requirements as they apply to suction dredge equipment. The proposed rule change is the least burdensome alternative.	Proposed Rule Change
Include provisions for inspection and decontamination relating to aquatic invasive species as requirements in the Gold and Fish pamphlet.	None	The suggestion is beyond the scope of the direction provided by the Commission for this rule making so the aquatic invasive species provisions will be added to WAC 220-660-305 only. Provisions of chapter 77.135 still apply to all aquatic conveyances regardless of whether those requirements are mentioned in the pamphlet.	No Rule Change

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
Reporting Alternatives			
<p>Don't require annual reporting.</p> <p>Require detailed activity reporting.</p>	<p>WAC 220-660-305(8) By February 1st of each year, a person issued a suction dredge HPA must report to the department regarding the date, amount, type, and location of any suction dredging activity conducted during the preceding calendar year for which the HPA is in effect.</p>	<p>WDFW recognizes that reporting is a new requirement, however, reporting is needed so WDFW can determine how many dredges operate statewide on a given date; where and when they operate and how much bed material is dredged. This information is important to understanding if there are unaddressed effects to fish life.</p> <p>Annual reporting rather than more frequent reporting is the least burdensome alternative. Annual timing will provide timely information.</p>	<p>Proposed Rule Change</p>
Miscellaneous Alternatives			
<p>Consider all life stages of fish when reviewing suction dredging applications.</p>	<p>None</p>	<p>Chapter 77.55 RCW authorizes WDFW to provision HPAs to adequately protect fish life. Since we consider all life stages now, now no rule change is necessary.</p>	<p>No Rule Change</p>
<p>WDFW must ensure permittees are complying with all HPA provisions.</p>	<p>None</p>	<p>Compliance with the permit conditions is a requirement of the HPA now.</p>	<p>No Rule Change</p>
<p>Require a registration sticker for each suction dredge.</p>	<p>None</p>	<p>WDFW doesn't have enough information to indicate whether requiring the registration of suction dredges is necessary to protect fish life. This requirement would be premature and therefore burdensome.</p>	<p>No Rule Change</p>

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
Delay compliance timetables until some date after 2/1/2020	None	<p>Reporting is needed so that WDFW can determine how many dredges operate statewide on a given date; where and when they operate and how much bed material is dredged. This information is important to understanding if there are unaddressed effects to fish life.</p> <p>WDFW plans to implement reporting requirements beginning in 2019, for annual reports due in February 2020. Further delay could delay protection of fish life. This proposed timetable is the least burdensome alternative.</p>	No Rule change
HPAs should include more specific direction to permittees regarding permits needed from other agencies.	WAC 220-660-305(3)(c) Nothing in chapter 220-660 WAC relieves a person of the duty to obtain landowner permission and any other required permits before conducting any mineral prospecting activity.	<p>This is a current rule in WAC 220-660-300(3)(c) that is being brought over into the new section.</p> <p>Each HPA includes a statement advising permittees of their responsibility to comply with other laws. WDFW will continue to work with agencies and suction dredgers to determine the best ways to get the message out. WDFW does not know all of the permits needed so the general disclaimer is prudent.</p>	No Rule Change
Require notice to WDFW prior to commencing work and 24 hours after work is complete.	None	WAC 220-660-050(13)(d) currently gives WDFW the ability to do this. No change is necessary.	No Rule Change
Require fish screens on all suction dredge equipment	WAC 220-660-305(5)(h) As provided in RCW 77.57.010 and 77.57.070, any device a person uses	This is a current rule in WAC 220-660-300(3)(c) that is being brought over into the	Proposed Rule Change

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
	for pumping water from fish-bearing waters must be equipped with a fish guard to prevent fish from entering the pump intake.	new section. No change is necessary.	
Prohibit motorized mineral prospecting if water site temperature (as measured by a digital thermometer with 0.1° F sensitivity) exceeds 63.5° F (or 17.5°C). Thermometers shall be carried by enforcement officers and employed during field visits.	None	Risk posed by drought conditions is a concern for all types of hydraulic projects. Rather than put an increased burden on one applicant group, WDFW prefers to use emergency rulemaking to restrict or prohibit hydraulic projects when water temperatures are high enough to warrant it. This is the least burdensome alternative.	No Rule Change
Avoid issuing suction dredge permits during lamprey spawning seasons in these priority lamprey reintroduction areas: Yakima, Methow, Naches, Walla Walla, and Tucannon.	None	Chapter 77.55 RCW authorizes WDFW to provision HPAs for the protection of all fish life including lamprey. Biologists evaluate the risks to fish life present at the specific project location. No change is necessary.	No Rule Change
Write rules that bring WDFW into compliance with other state or federal laws; specifically the federal endangered species act (ESA) and federal Clean Water Act (CWA). Eliminate suction dredging in ESA Critical Habitat. Prohibit suction dredging in all water bodies with any life stage of ESA-listed fish and other priority fish species. Prohibit mining in the following designated habitat areas: ESA Critical Habitat; Wild Steelhead	None	Chapter 220-660 WAC establishes the rules for the department’s HPA authority: Chapter 77.55 RCW Construction Projects in State Waters. Chapter 77.55 RCW does not authorize WDFW to use the hydraulic code to enforce other local, state and federal laws. <u>RCW 77.55.231(1)</u> says that WDFW “...may not impose conditions that attempt to optimize conditions for fish life that are out of proportion to the impact of the proposed project.”	No Rule Change

Alternative/Comment	Proposed Rule Change	WDFW Response	Least Burdensome Alternative
gene banks; Wild and Scenic Rivers; Withdrawn River segments; any other river and streams or segments of rivers and streams re-opened to access for migratory protected fish by removing culverts or other blockages.		<i>(Response is continued in the footnote, below)</i>	
ESA/CWA response continued:	<p>The hydraulic code rules do not require HPA permit holders to take an action that violates requirements of another federal or state law. All hydraulic projects undertaken are done so voluntarily. In addition, authorization to conduct any hydraulic project, including mineral prospecting, does not exempt a person from the requirements of other regulatory authorities or landowners.</p> <p>Prohibiting motorized suction dredging in rivers and creeks based on a federal designation would be a significant change in the department's business practices and a substantial policy decision affecting the mining community. If the Commission adopted a ban it would be contrary to the legislative finding (RCW 34.05.328) that states <i>"unless otherwise authorized, substantial policy decisions affecting the public be made by those directly accountable to the public, namely the legislature, and that state agencies not use their administrative authority to create or amend regulatory programs."</i></p>		

7.3 Determination: Least Burdensome

After considering alternative versions of the rule in context with the goals and objectives of the authorizing statute, **WDFW determines that the proposed rule represents the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under chapters 77.55 and 77.135 RCW.**

SECTION 8: Remaining APA Determinations

The remaining narrative in this document addresses determinations pursuant to RCW 34.05.328(1)(f) through (1)(i) relating to state and federal laws, equal requirements for public and private applicants, and coordination with state, federal, tribal, and local entities.

8.1 Violation of other state or federal laws

RCW 34.05.328 (1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

There are no provisions in the Hydraulic Code Rules requiring those to whom they apply to take an action that violates requirements of another federal or state law.

We make this determination because the HPA permit does not compel persons to take an action.

The HPA also does not convey permission to use public or private property to conduct the project.

Applicants must seek permission to use property from the land owner.

Finally, authorization by WDFW to conduct any hydraulic project does not exempt anyone from the requirements of other regulatory agencies or landowners.

Every HPA issued in Washington carries the notice that the permit

“... pertains only to requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.”

Consistent with other state authorities, the Hydraulic Code Rules do not regulate whether an action can occur, only the time, place, and manner in which that action can occur in order to adequately protect fish life. Because of this, **WDFW has determined that the proposed rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.**

8.2 Equal Requirements for Public and Private

RCW 34.05.328 (1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law.

The hydraulic code rules generally apply equally to all HPA applicants whether public or private. Public entities are unlikely to engage in suction dredging for gold recovery, but if they did, requirements would be the same for public and private entities. **WDFW has determined that the rule does not impose more stringent performance requirements on private entities than on public entities.**

8.3 Difference from other state and federal rules

RCW 34.05.328 (1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following: [(i) explicit state statute..., (ii) substantial evidence that the difference is necessary...].

8.3.1 Other federal, state, or local agencies with authority to regulate this subject

WDFW has sole authority to implement the Hydraulic Code Rules (chapter 220-660 WAC) under chapter 77.55 RCW (Construction Projects in State Waters). Pursuant to 77.55.361, Department of Natural Resources has authority to carry out the requirements of the Hydraulic Code for forest practices hydraulic projects regulated under Chapter 76.09 RCW. WDFW and DNR have a process for concurrent review of such projects.

Local and state government regulations pertaining to land use and development, shoreline use, and clean water appear to have overlapping authorities, but have different fundamental purposes. Washington Department of Ecology regulates water diversions, discharges, and

stormwater outfalls, features that could occur concurrently with a project that is regulated under the hydraulic code. Local governments have regulations for the location (such as under the Shoreline Management Act) and methods (building codes) for construction projects. These aspects of a construction project also can co-occur with hydraulic project requirements, but none of these other authorities either duplicates or supersedes the hydraulic code authority.

8.3.2 The rule differs from federal regulations or statutes applicable to the same activity.

The Hydraulic Code regulates hydraulic projects for the protection of fish life. Hydraulic projects are construction projects and other work that effects the natural flow or bed of state waters. Federal protections under the Rivers and Harbors Act, Clean Water Act (U.S. Army Corps of Engineers and Washington Department of Ecology), and Endangered Species Act (U.S. Fish and Wildlife Service and National Marine Fisheries Service) may regulate hydraulic projects, however the purposes for these federal acts are very different from the state Hydraulic Code and rules.

Indeed, local, state, and federal agencies may have jurisdiction over the same project. Table 8 provides an overview of the characteristics of some aquatic permits at the federal, state, and local levels. At each jurisdictional level, priorities and legal mandates determine the resources or interests that are protected and the extent of the protection that is applied. Mitigation requirements also vary according to the agencies' protection priorities and legal mandates. As a result, regulatory efforts may share intentions or could have entirely different animal or habitat protection objectives.

The federal Endangered Species Act (ESA) comes closest to regulating the same subject matter - the protection of fish life. But while the state hydraulic code regulates the manner in which a project is constructed (so that the project is protective of fish life), the federal ESA regulates the "take" or kill of species listed as threatened or endangered under the Act. Federal ESA jurisdiction relates only to animals or plants listed as threatened or endangered under the Act. The state hydraulic code applies to all fish species.

The HPA fills a unique niche because it is the HPA only permit issued solely to protect (all) fish life. In many cases, the HPA is the only permit required for:

- Hydraulic projects in streams too small to be considered a shoreline of the state (relevant to the state Shorelines Management Act) or navigable waters (relevant to Corps of Engineers permitting);
- Hydraulic projects not regulated under the Clean Water Act;
- Hydraulic projects not subject to state or federal landowner notification or permit requirements;
- Hydraulic projects exempt from state or national Environmental Policy Act review (refer to SEPA statute and rules for criteria for SEPA exemption); or
- Hydraulic projects exempt from local permits.

8.3.3 Determination: Difference is necessary

Differences between state HPA authority (and the current rule proposal) and federal authorities are necessary because there are no federal laws or rule protecting all fish life from the effects of

construction projects. **WDFW has determined that the rule differs from any federal regulation or statute applicable to the same activity or subject matter and that the difference is necessary to meet the objectives of the hydraulic code statute.**

8.4 Coordination with state, federal and local laws

RCW 34.05.328 (1)(i) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.

8.4.1 Coordination with state and federal agencies

On July 9, 2018, WDFW met with representatives from State Departments of Natural Resources and Ecology, U.S. Fish and Wildlife Service, National Marine Fisheries Service, U.S. Army Corps of Engineers, and U.S. Forest Service. At the July 9 meeting, WDFW presented the general objectives for rule making and sought feedback from federal agencies on how WDFW can construct proposed rules that meet WDFW needs while avoiding impact to other WDFW activities and permitting.

After proposed rules are developed, WDFW will meet again with these agencies to discuss the proposal and get further comments. WDFW expects that agencies will also submit formal comment letters during the public comment period for the rules.

Ongoing coordination with federal, state, and local agencies occurs because, while the objectives of regulation are different, projects being reviewed under the HPA program are potentially reviewed by these other jurisdictions as well. WDFW coordinates mitigation requirements with federal agencies so that mitigation required for construction project impacts can satisfy mitigation required for impacts to other authorities; this coordination prevents imposing double the mitigation for the same project impact.

WDFW also solicits input from federal, state, and local agencies on ways to improve HPA program implementation, including both the regulation of projects and with the technical assistance that WDFW provides to other agencies and to project proponents.

Table 8 Comparison of some common aquatic permits

Permit	Agency	Purpose	Trigger activity	Action	Limitations
Hydraulic Project Approval	WDFW	Protect fish/shellfish and their habitats	Projects that use, divert, obstruct, or change the natural flow or bed of salt or fresh state waters.	Construction permit issued with conditions that mitigate impacts	May not optimize conditions for fish or unreasonably restrict a project.
ESA Incidental Take Permit	USFWS, NMFS	Ensure activities are not likely to jeopardize the continued existence of listed species, or destroy or adversely modify their critical habitat	Anyone whose otherwise-lawful activities will result in the “incidental take” of a listed species needs an incidental take permit.	Incidental take permit and terms and conditions	Applies only to ESA-listed species; “take” includes harm to designated critical habitat
Shoreline Substantial Development Permit	Local governments, Ecology	Encourages water-dependent uses, protects shoreline natural resources, and promotes public access.	Any project, permanent or temporary, which interferes with public use of shorelands. Projects in or within 200 feet of marine waters, streams, lakes, and associated wetlands and floodplains.	Development permit issued by local government	Conditional Use and Variance require review by Ecology.
NPDES construction stormwater or general permit	Ecology	Protects and maintains water quality and prevents or minimizes sediment, chemicals, and other pollutants from entering surface water and groundwater.	Construction activities that disturb 1 or more acres of land and have potential stormwater or storm drain discharge to surface water.	Construction permit or general permit with conditions to minimize discharge and/or report	Apply to projects disturbing 1 or more acres of land

Permit	Agency	Purpose	Trigger activity	Action	Limitations
Aquatic Use Authorization	DNR	Allows use of state- owned aquatic lands. Washington State Department of Natural Resources (DNR) determines if aquatic land is state- owned, if it is available for use, and if the use is appropriate.	Project located on, over, through, under, or otherwise impacts state- owned aquatic lands. Aquatic lands are defined as tidelands, shorelands, harbor areas, and the beds of navigable waters.	Use authorization permit or lease	Only for state-owned aquatic lands
Section 404 Permit (Regional, Nationwide, or Individual) for Discharge of Dredge or Fill Material	U.S. Army Corps of Engineers	Restores and maintains chemical, physical, and biological integrity of national waters. Authorized under Section 404 of the Clean Water Act.	Excavating, land clearing, or discharging dredged or fill material into wetlands or other U.S. waters.	Permit to discharge dredged or fill material	Concurrent consultation on 401 Certification, CZM, National Historic Preservation Act, Endangered Species Act, Tribal Trust Issues, and National Environmental Policy Act.

Source: Excerpted from Governor’s Office of Regulatory Innovation and Assistance detailed [comparison of aquatic permits](#) by local, state, and federal agencies.

8.4.2 Consultation with tribes

WDFW held three meetings with tribes: August 1 with Upper Columbia United Tribes representatives in Spokane, August 2 with Yakama Tribal staff in Toppenish, and August 9 at the Northwest Indian Fisheries Commission. Further comment was received at the September 2018 Governor's Centennial Accord meeting with Washington tribes in Suquamish.

Some tribes have expressed that the rulemaking objectives do not go far enough to protect fish life. Many would like to see suction dredging banned or significantly curtailed in salmon waters. WDFW expressed its commitment to increasing compliance inspections and conducting implementation and effectiveness monitoring to increase our understanding of the risks to fish life from suction dredging.

Tribes have also expressed a concern that suction dredging and other mineral prospecting proposes a risk to cultural resources. WDFW's authority under the HPA statute is limited to protection of fish life, so we cannot condition an HPA for the protection of cultural resources.

WDFW has asked tribes to support the department's effort to gain a better understanding of the potential risk of suction dredging activity through reporting, monitoring and compliance inspections. WDFW also offered to work outside of this rulemaking process to identify what steps WDFW can take to reduce the risk to cultural resources from permitted hydraulic projects.

8.4.3 Permittee Responsibilities

Permittees are notified in standard HPA permits and in the Gold and Fish pamphlet that it is the permittee's or miner's responsibility to meet legal requirements of other state, federal, and local agencies in order to conduct mining activity. Permits from and notifications to other regulatory agencies may be required and applicable landowners or claim holders must be consulted before conducting any activity. These responsibilities are independent from permitting under the hydraulic code rules in the Gold and Fish pamphlet or HPA permit.

8.4.4 Determination: Coordinated with other federal, state, and local laws

WDFW has demonstrated that the rule has been coordinated, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.

SECTION 9: Sources of Information Used

RCW 34.05.271(1)(a) Before taking a significant agency action, the department of fish and wildlife must identify the sources of information reviewed and relied upon by the agency in the course of preparing to take significant agency action. Peer-reviewed literature, if applicable, must be identified, as well as any scientific literature or other sources of information used. The department of fish and wildlife shall make available on the agency's web site the index of records required under RCW 42.56.070 that are relied upon, or invoked, in support of a proposal for significant agency action.

Following are references for material reviewed and relied upon by WDFW in the course of preparing to take this rule making action (Table 9), which is a significant legislative rule pursuant

to RCW 34.05.328(5)(a). Each reference is categorized for its level of peer review pursuant to RCW 34.05.271. A key to the review categories under RCW 34.05.271 is provided on Table 9A.

Table 9 References for material reviewed in preparation for HPA suction dredge rule making

Reference Citation	Category
Alaska Department of Environmental Conservation. 2018. Authorization to Discharge under the Alaska Pollutant Discharge Elimination System for Small Suction Dredge Placer Miners - General Permit Number AKG375000. Effective February 8, 2018.	v
Alaska Department of Fish and Game. 2019. Fish Habitat Permit - Small-Scale Mining - Mat-Su Area. Effective 1/1/2019.	viii
Asplund, T.R. 2000. The effects of motorized Watercraft on Aquatic Ecosystems. Wisconsin Department of Natural Resources Publ-SS-948-00. 21pp.	viii
California Code of Regulations Title 14, Division 1, Subdivision 1, Chapter 8, Section 228. Suction Dredging. Filed 8-4-2014 (Register 2014, No. 32).	v
California Code of Regulations Title 14, Division 1, Subdivision 1, Chapter 8, Section 228.5. Suction Dredge Use Classifications and Special Regulations. Filed 4-27-2012; operative 4-27-2012 pursuant to Government Code section 11343.4 (Register 2012, No. 17).	v
California State Water Resources Control Board. 2018. NPDES - Suction Dredge Mining. Web page on status of developing a statewide general permit . Updated 9/7/2018.	viii
DelCotto, A. 2010. Suction Dredge Mining: The United States Forest Service Hands Miners the Golden Ticket. Environmental Law 40(1021): 1022-1055.	i
Draggoo, J.C., & Associates. 1987. River Use Conflicts in Oregon - A Study of Jet Boat Use on Oregon's Rivers and Streams. Oregon State Marine Board. Technical Report. 29 pp + appendices.	viii
Horizon Water and Environment. 2009. Suction Dredge Permitting Program. Literature review on the impacts of suction dredge mining in California. http://www.dfg.ca.gov/suctiondredge/	viii
Horizon Water and Environment. 2011. Suction Dredge Permitting Program-Draft Subsequent Environmental Impact Report. (HWE 09.005) Oakland, CA. http://www.dfg.ca.gov/suctiondredge/	viii
Idaho Department of Lands IDAPA 20 Title 03 Chapter 01 - Dredge and Placer Mining Operations in Idaho. Downloaded 1/30/2018.	v
Idaho Department of Water Resources IDAPA 37 Title 03 Chapter 07 - Stream Channel Alteration Rules. Downloaded 1/30/2018.	v
Idaho Department of Water Resources. 2018. 2018 Idaho Recreational Mining Authorization (Letter Permit). [sample] 3pp.	viii
Idaho Department of Water Resources. 2018. Suction Dredge Invasive Species Information.	viii
Montana Department of Environmental Quality. 2015. General Permit for Portable Suction Dredging - Authorization to Discharge under the Montana Pollutant Discharge Elimination System. Permit No. MTG370000.	viii

Reference Citation	Category
Montana Department of Environmental Quality. 2015. MTG370000 Attachment 1 - Suction Dredge Log.	viii
National Marine Fisheries Service (NOAA, NMFS). 2012. Public Draft Recovery Plan for the Southern Oregon Northern California Coast Evolutionarily Significant Unit of Coho Salmon (<i>Oncorhynchus kisutch</i>).	viii
National Marine Fisheries Service (NOAA, NMFS). 2015. ESA Biological Opinion for EPA's Proposed Approval of Certain Oregon Water Quality Standards Including Temperature and Intergravel Dissolved Oxygen. WCR-2013-76. 314 pp.	viii
Oregon Chapter American Fisheries Society. 2013. Effects of Suction Dredge Mining on Oregon Fishes and Aquatic Habitats. April 2013. 5 pp.	viii
Oregon Chapter American Fisheries Society. 2015. Effects of Suction Dredge Mining on Oregon Fishes and Aquatic Habitats. Supplemental Information. March 2015.	viii
Oregon Chapter American Fisheries Society. 2017. Suction Dredge Mining Impacts on Oregon Fishes, Aquatic Habitats, and Human Health. 17 pp.	viii
Oregon Department of Environmental Quality. 2017. General permits, 2017. Downloaded January 18, 2018. Microsoft Excel spreadsheet.	viii
Oregon Department of Environmental Quality. 2018. National Pollutant Discharge Elimination System Permit Evaluation Report - 700PM NPDES general permit modification. May 7, 2018. 7 pp.	viii
Oregon Department of Environmental Quality. 2018. NPDES 700-PM Suction Dredge Mining Monitoring Record [form]. Downloaded February 5, 2018.	viii
Oregon Department of Geology and Mineral Industries. 2016. Exclusion Certificates (Frequently Asked Questions). Downloaded 10/27/2016.	viii
Oregon Department of State Lands. 2011. Recreational Placer Mining Reporting form. Downloaded 10/12/2016.	viii
Oregon Department of State Lands. 2013. Comparison of State Suction Dredging Regulations for Oregon, Idaho, and California. Prepared April 12, 2013. 3pp.	viii
Oregon Department of State Lands. 2015. Moratorium on Motorized Placer Mining for Precious Metals In or Near Certain Rivers and Streams Begins on January 2, 2016 (Frequently Asked Questions). December 31, 2015. 4 pp.	viii
Oregon Administrative Rules Chapter 141, Division 85, Section 0500-0785 Administrative Rules governing the issuance and enforcement of removal-fill authorizations within waters of Oregon including wetlands.	v
Oregon Administrative Rules Chapter 141, Division 89, Section 0820-0835 Non-motorized in-stream placer Mining in ESH.	v
Oregon Revised Statutes 2017 Edition. Volume 5, Chapter 196, Sections 795 et seq. Removal of material; Filling.	v
Oregon Laws. 2017. Chapter 300. Oregon Senate Bill 3. Effective Date January 1, 2018.	v
Solliday, L., Director Oregon Department of State Lands. December 14, 2010. Letter to Oregon Governor Theodore R. Kulongoski providing a Status Report on Placer Mining in Oregon.	viii

Reference Citation	Category
Somer, W.L., and T.J. Hassler. 1992. Effects of Suction-Dredge Gold Mining on Benthic Invertebrates in a Northern California Stream. N. Am. J. Fish. Manage. 12:244-252	i
Stern, G.R. 1988. Effects of suction dredge mining on anadromous salmonid habitat in Canyon Creek, Trinity County, California. M.S. Thesis, Humboldt State University, Arcata, California, 80 pp.	viii
Sutherland, A.J. and D.G. Ogle. 1975. Effect of jet boats on salmon eggs . N.Z. J. Mar. Freshwater Res. 9(3):273-282.	i
The Diggings. 2018. Mining claims and owners downloaded June 8, 2018. Thediggings.com	viii
U.S. Army Corps of Engineers, Alaska District. 2012. General Permit POA-2007-372-M1 - Floating Recovery Devices in Navigable Waters of the United States, for the Purpose of Mineral Recovery, in the State of Alaska. Issue date October 1, 2012.	viii
U.S. Bureau of Land Management. 2017. Locatable minerals web information downloaded 1/3/2017.	viii
U.S. Bureau of Land Management. 2018. Oregon-Washington Data Viewer . Information on mineral claims downloaded June 8, 2018.	viii
U.S. Court of Appeals, Ninth Circuit. 2018. Bohmker et al. v. Oregon et al. Opinion. No. 16-35262 D.C. No.1:15-cv-01975-CL. Filed September 12, 2018.	v
U.S. Environmental Protection Agency Region 10. 2012. Biological Evaluation for Small Placer Miners in Idaho National Pollutant Discharge Elimination System (NPDES) General Permit	viii
U.S. Environmental Protection Agency Region 10. 2013. NPDES suction dredge annual report form. Downloaded 3/13/2018.	viii
U.S. Environmental Protection Agency Region 10. 2018. Authorization to Discharge under the National Pollutant Discharge Elimination System (NPDES) for Small Suction Dredge Miners in Idaho - General Permit IDG370000.	v
U.S. Forest Service. 2007. U.S. Forest Service Mining Regulations - 36 CFR 228, Subpart A - Summary. (Informational flyer.) 3 pp.	viii
U.S. Forest Service. 2015. Suction Dredging and High Banking Operations for Notices of Intent within the Rogue River-Siskiyou National Forest - Biological Assessment.	viii

Table 9A Key to RCW 34.05.271 Categories Relating to Level of Peer Review

Category Code	RCW 34.05.271 Section 1(c)
i	Independent peer review: Review is overseen by an independent third party
ii	Internal peer review: Review by staff internal to the department of fish and wildlife;
iii	External peer review: Review by persons that are external to and selected by the department of fish and wildlife;
iv	Open review: Documented open public review process that is not limited to invited organizations or individuals;

v	Legal and policy document: Documents related to the legal framework for the significant agency action including but not limited to: (A) Federal and state statutes; (B) Court and hearings board decisions; (C) Federal and state administrative rules and regulations; and (D) Policy and regulatory documents adopted by local governments;
vi	Data from primary research, monitoring activities, or other sources, but that has not been incorporated as part of documents reviewed under the processes described in (c)(i), (ii), (iii), and (iv) of this subsection;
vii	Records of the best professional judgment of department of fish and wildlife employees or other individuals; or
viii	Other: Sources of information that do not fit into one of the categories identified in this subsection (1)(c).

SECTION 10: For Further Information

This report was prepared by:

Teresa Scott
 Protection Division Environmental Planner 4
 Habitat Program
 360-902-2713 teresa.scott@dfw.wa.gov

Randi Thurston
 Protection Division Manager
 Habitat Program
 360-902-2602 randi.thurston@dfw.wa.gov