



PROPOSED RULE MAKING

CR-102 (June 2012)

(Implements RCW 34.05.320)

Do NOT use for expedited rule making

Agency: Washington State Department of Natural Resources

- | | |
|--|--|
| <input checked="" type="checkbox"/> Preproposal Statement of Inquiry was filed as WSR 14-05-098 ; or | <input type="checkbox"/> Original Notice |
| <input type="checkbox"/> Expedited Rule Making--Proposed notice was filed as WSR _____; or | <input checked="" type="checkbox"/> Supplemental Notice to WSR 14-09-107 |
| <input type="checkbox"/> Proposal is exempt under RCW 34.05.310(4) or 34.05.330(1). | <input type="checkbox"/> Continuance of WSR _____ |

Title of rule and other identifying information: (Describe Subject)

Geoduck Diver Safety Program. Effective January 1, 2015, all commercial wildstock geoduck divers participating in the state managed fishery are required to annually demonstrate proof of compliance with the geoduck diver safety program to be maintained on a DNR harvest plan of operations and/or obtain a commercial diver license under RCW 77.65.410. Proposed safety requirements include a combination of training qualifications and medical requirements. Training qualifications include CPR/first aid certification, emergency oxygen administration certification, Washington State Boater Education Card, and an annual review of the fundamental principles of dive safety. Medical requirements include a physical examination. The proposed rule has been revised from the original proposal (WSR 14-09-107) based on the comments received during public hearings. Important changes include: (1) the hyperbaric component of the physical has been removed; (2) the frequency of the medical requirement has been reduced from annual to every three years; and (3) a year-long deferment of medical requirements to account for temporary physical impairments.

Hearing location(s):

Natural Resources Building, Rm 172
1111 Washington St SE
Olympia, WA 98504

Date: November 25, 2014 Time: 6:00 PM

Submit written comments to:

Name: Matthew Goehring
Address: Dept. of Natural Resources
1111 Washington St SE
MS 47027
Olympia, WA 98504-7027
e-mail matt.goehring@dnr.wa.gov
fax (360) 902-1786 by (date) November 26th, 2014

Assistance for persons with disabilities: Contact

Ms. Megan McKay by November 18, 2014

TTY (360) 902-1125 or () _____

Date of intended adoption: December 2, 2014

(Note: This is NOT the effective date)

Purpose of the proposal and its anticipated effects, including any changes in existing rules: Second Substitute House Bill 1764 requires DNR to adopt rules establishing a geoduck diver safety program. The proposed program establishes mandatory safety training and medical requirements for all divers participating in the state managed wildstock geoduck fishery. Mandated safety requirements are intended to mitigate the inherent hazards associated with working in hyperbaric conditions and reduce the probability of diver related accidents. Increased safety requirements will reduce risk exposure for geoduck divers, as well for other individuals that provide emergency response in the event of a dive-related accident.

Reasons supporting proposal: Commercial geoduck harvesting techniques expose divers to a wide-range of occupational health and safety hazards. Despite recognized hazards, there are currently no mandated safety requirements for geoduck divers engaged in the wildstock fishery. The rule aligns geoduck harvest diving with industry standards for commercial diving operations.

Statutory authority for adoption: RCW 43.30.560

Statute being implemented: RCW 43.30.560

Is rule necessary because of a:

- | | | |
|-------------------------|------------------------------|--|
| Federal Law? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Federal Court Decision? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| State Court Decision? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If yes, CITATION:

DATE October 21, 2014

NAME (TYPE OR PRINT)
Megan Duffy

SIGNATURE

TITLE
Deputy Supervisor, Aquatics & Environmental Protection

CODE REVISER USE ONLY

**OFFICE OF THE CODE REVISER
STATE OF WASHINGTON
FILED**

DATE: October 21, 2014

TIME: 4:16 PM

WSR 14-21-158

Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters: DNR will implement compliance verification for the geoduck diver safety program. Information will be shared with Department of Fish & Wildlife for the purposes of issuing commercial geoduck diver licenses under RCW 77.65.410.

Name of proponent: (person or organization) Washington State Department of Natural Resources Private
 Public
 Governmental

Name of agency personnel responsible for:

Name	Office Location	Phone
Drafting..... Matthew Goehring	1111 Washington St SE, Olympia, WA 98504	(360) 902-1090
Implementation.... Blain Reeves	1111 Washington St SE, Olympia, WA 98504	(360) 902-1731
Enforcement..... Todd Palzer	1111 Washington St SE, Olympia, WA 98504	(360) 902-1864

Has a small business economic impact statement been prepared under chapter 19.85 RCW or has a school district fiscal impact statement been prepared under section 1, chapter 210, Laws of 2012?

Yes. Attach copy of small business economic impact statement or school district fiscal impact statement.
A copy of the statement may be obtained by contacting:
Name: Matthew Goehring
Address: Dept. of Natural Resources
1111 Washington St SE
MS 47027
Olympia, WA 98504

phone (360) 902-1090
fax (360) 902-1786
e-mail matt.goehring@dnr.wa.gov

No. Explain why no statement was prepared.

Is a cost-benefit analysis required under RCW 34.05.328?

Yes A preliminary cost-benefit analysis may be obtained by contacting:
Name: Matthew Goehring
Address: Dept. of Natural Resources
1111 Washington St SE
MS 47027
Olympia, WA 98504

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No: Please explain:

NEW SECTION

WAC 332-30-172 Geoduck diver safety program. (1) General.

(a) Beginning January 1, 2015, divers shall annually demonstrate compliance with the geoduck diver safety program established in this section prior to being identified on a department geoduck harvest agreement plan of operations.

(b) The department shall accept applicable documents and certifications beginning October 1st of each year to verify compliance for the subsequent calendar year. Materials will be reviewed in the order they are received and divers will be notified of their compliance status within thirty-days of receipt of all required documentation.

(c) The department will maintain an electronic database documenting annual compliance with the program. Compliance verification shall expire at the end of a calendar year.

(d) If a plan of operations spans portions of two calendar years, the department will only verify diver compliance for the calendar year the diver is initially identified on the plan of operations.

(2) Training qualifications.

(a) Divers shall provide proof of completion of the following training qualifications:

(i) Cardiopulmonary resuscitation (CPR) and first-aid certification;

(ii) Emergency oxygen administration certification;

(iii) Washington state boater education card; and

(iv) Signed acknowledgment confirming review and understanding of the fundamental principles of diver safety, including:

(A) Diving physiology and physics;

(B) Diving operations and emergency procedures;

(C) Tools, equipment, and techniques relevant to geoduck harvesting;

(D) U.S. Coast Guard vessel safety requirements; and

(E) Other subject areas as determined by the geoduck harvest safety committee.

(b) The geoduck harvest safety committee established in RCW 43.30.555 shall develop, distribute, and update as necessary, review materials on the principles of dive safety.

(3) Medical requirements.

(a) Divers shall be medically fit to harvest geoduck at depths up to 70 feet below mean lower low tide or otherwise be exposed to hyperbaric conditions.

(b) An initial medical examination shall be completed within six months preceding department review. Subsequent examinations shall be required at three year intervals from the date of initial examination.

(c) A copy of the medical standards in this section and a summary of the nature and extent of hyperbaric conditions to which geoduck harvest divers are exposed shall be provided to the examining physician.

(d) Scope of medical examination:

(i) Medical history;

(ii) Diving related work history;

(iii) Basic physical examination;

(iv) Tests required by Table 1; and

(v) Any additional tests at the discretion of the examining physician.

Table 1
Tests for Geoduck Diving Medical Examination

Test	Initial Examination	Reexamination
Chest X ray	X	
Visual acuity	X	X
Color blindness	X	
EKG: Standard 12L ¹		
Hearing test	X	X
Hematocrit or hemoglobin	X	X
Sickle cell index	X	
White blood count	X	X
Urinalysis	X	X

¹ To be administered to the diver once at age thirty-five or over.

(e) A written report prepared by the examining physician shall be submitted to the department. The report must identify the date of examination in accordance with this standard and provide the examining physician's opinion of a diver's medical fitness to conduct geoduck harvest diving in depths up to 70 feet below mean lower low tide. Test results used to determine medical fitness shall not be submitted to the department.

(f) Consideration of temporary physical impairments: If a physician's report states an individual is medically unfit for geoduck harvest diving, the individual shall be considered in compliance with the medical requirements in this section for one license-year for the sole purposes of licensing under RCW 77.65.410. Individuals found medically unfit to dive shall not be permitted on a geoduck harvest plan of operations as a diver. Nothing shall preclude such individuals from being identified on a geoduck harvest plan of operations in another capacity. Individuals declared medically unfit to dive in a given license-year must be reexamined and found medically fit to dive no later than the renewal deadline of the subsequent license-year in order to maintain compliance with the requirements of this section for the purposes of licensing under RCW 77.65.410.

Small Business Economic Impact Statement

Geoduck diver safety program

WAC 332-30-172

October 21, 2014

Washington Department of Natural Resources
Aquatic Resources Division
Olympia, WA

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I. Executive Summary

The proposed rule to establish a geoduck diver safety program includes a combination of annual training qualifications and medical requirements for divers to participate in the state managed wildstock geoduck fishery. The mandated requirements are comparable with industry standards for commercial diving. All divers must annually demonstrate compliance prior to being listed on a Department of Natural Resources (DNR) harvest plan of operations or issued a Department of Fish & Wildlife (DFW) geoduck diver license under RCW 77.65.410.

The annualized cost of compliance with the proposed geoduck diver safety program is estimated to be \$368-418 per diver and is unrelated to harvest revenue. Since compliance is connected to a privately held license, all costs are assumed to be borne by the individual diver. For the purposes of this analysis all divers fall within the scope of a small business – either they are employed by a company with fewer than 50 employees or are considered self-employed. The rule will not have a disproportionate impact on small businesses. However, the relative burden of compliance costs as measured as a percent of diver income will be related to the number of days an individual spends on water harvesting geoduck.

Given the high value of the geoduck commodity, the proposed rule will not impact overall industry demand for harvest divers. However, an unknown percentage of divers may not be deemed medically qualified to conduct harvest diving under hyperbaric conditions. Some percentage of divers who fall within the bottom quartile in terms of frequency of dive-days may also decide to not pursue licensing due to the cost of compliance as compared to their relatively small income from geoduck harvest. This could result in a small decrease in total number of licensed divers, but is not anticipated to impact total annual geoduck harvest.

II. Background

The Washington Department of Natural Resources (DNR), Department of Fish and Wildlife (DFW), and Puget Sound Treaty Indian Tribes jointly manage the commercial wildstock geoduck fishery. Annual harvest of wildstock geoduck has increased from 82,000 pounds in 1970 to 4,327,000 pounds in 2010 valued at over \$36 million (DFW, 2011). As manager of state-owned aquatic lands, DNR maintains proprietary rights to fifty percent of the annual harvestable commercial quota. Since 2003, the state-managed portion of annual harvest has averaged 1,965,295 pounds, generating between \$3.6 and \$29.6 million of revenue (DNR, unpublished data).

Commercial harvest occurs within tracts known to support commercial quantities of geoducks. DNR auctions the right to harvest quotas within defined tracts. A harvest agreement between DNR and a purchaser outlines legally binding terms of harvest. Successful bidders must submit a harvest plan of operations outlining (1) individuals, vessels, and vehicles involved in harvest and transport operations; (2) legal relationship between purchasers and individuals engaging in harvest operations; and (3) assurances that all employees and subcontractors will comply with the terms of the harvest agreement.

Geoduck harvest is completed using surface-supplied air diving techniques. Divers are deployed from harvest vessels and use handheld water jets to extract geoduck from depths between 18 and 70 feet

below mean lower low water. All divers participating in the state-managed wildstock fishery must be identified within a DNR harvest contract plan of operations and possess a DFW commercial geoduck diver license under RCW 77.65.410.

Rationale for Rulemaking

The commercial geoduck diving occupation exposes divers to a wide range of health and safety hazards. Despite recognized hazards associated with commercial diving, there are currently no mandated safety requirements for geoduck divers engaged in the wildstock fishery. The proposed rule establishes training and medical requirements that are similar to industry-wide commercial diving standards.

Second Substitute House Bill 1764 (2SHB 1764) directs DNR to establish: (a) an advisory geoduck harvester safety committee; and (b) a geoduck diver safety program outlining mandatory safety requirements for all divers. The safety committee, composed of agency and industry representatives, was required to provide DNR recommendations for safety program requirements by December 1, 2013. Beginning January 1, 2015, all divers will be required to demonstrate compliance with the diver safety program annually in order to be maintained on a DNR plan of operations and to obtain a commercial geoduck diver license under RCW 77.65.410.

The Federal Occupational Safety & Health Administration (OSHA) and Washington State Department of Labor & Industries (L&I) have developed commercial diving standards to address the unique safety concerns associated with operating in a hyperbaric environment. However, OSHA and L&I jurisdiction is limited by an ambiguous employee-employer relationship and the fact that geoduck divers are deployed from a vessel as opposed to a fixed platform.

Summary of Proposed Rule

The proposed geoduck diver safety program consists of a combination of training qualifications and medical requirements. Divers will be required to demonstrate compliance annually.

1. Training Qualifications
 - Cardiopulmonary resuscitation (CPR) and first aid certification;
 - Emergency oxygen administration certification;
 - Washington State Boater Education Card; and
 - Signed acknowledgement confirming review and understanding of principles of dive safety.
2. Medical Requirements
 - Triennial physical examination.

All divers must annually demonstrate proof of compliance with the geoduck diver safety program beginning January 1, 2015.

III. Analysis of Compliance Cost for Washington Businesses

Affected Industry

All divers licensed under RCW 77.65.410 and engaged in the state-managed wildstock geoduck fishery would be required to comply with the proposed geoduck diver safety program. Compliance is tied to the individual license holder – not the employer. 2SHB 1764 established an annual maximum of 77 licenses beginning in 2015. From 2008 to 2012, DFW issued an average of 69 commercial geoduck diver licenses. Annual licenses ranged from 63 licenses in 2012 to 81 licenses in 2009 (DFW, unpublished data). Considerable ambiguity surrounds the employee-employer relationship between geoduck divers and harvest vessel operators. For the purposes of this analysis all divers fall within the scope of a small business – either they are employed by a company with fewer than 50 employees or are considered self-employed. There are several geoduck purchasers that exceed the 50-employee threshold for small businesses; however, these firms do not directly employ divers at this time.

Tribal and aquaculture harvest divers are not subject to the proposed requirements.

Cost of Compliance

The cost of the rule requirements can be broken down into the cost of:

- training certifications and medical examinations;
- divers' time spent on the training; and
- record keeping and reporting.

Costs for the training certificates and medical examinations were estimated based on consultation with providers and publically available health care cost data. The cost of the divers' time was estimated based on an average hourly wage of \$15 and the time required for training requirements. The cost of maintaining and presenting the training records to DNR was deemed negligible compared to the other costs and was not included. Per-diver cost estimates are summarized in Table 1.

Table 1: Proposed Alternatives and their Average Costs, per Diver

	Frequency	Time (hrs)	Course/Exam Cost	Time Cost	Annual Cost
Training Requirements					
CPR and first aid certification	Biennial	6	\$90	\$90	\$90
Administrating emergency oxygen certification	Biennial	2	\$95	\$30	\$63
Dive safety Review	Annual	4	\$0	\$60	\$60
Washington State boater education course	Once	3	\$10	\$45	\$6
Medical Requirements					
Physical examination of diver's fitness	Triennial	3	\$400-550*	\$45	\$149-199
Totals		17	\$595-745	\$255	\$368-418

* Costs estimated from Health Care Bluebook and Fair Health Consumer Cost Lookup. Variation in costs is a result of certain medical tests being required only upon initial examination and/or after a diver reaches 35 years of age.

Impact on Small Businesses

Geoduck divers within the commercial wildstock fishery are self-employed or employed by harvest businesses that fall below the 50-employee small business threshold as defined in RCW 19.85.020. Since compliance is connected to a privately-held commercial diver license, the costs are expected to be borne by individual divers in the short term. Given that this rule only affects small businesses, there is no disproportionate impact on small versus large businesses.

The burden of compliance for individual divers will be proportionate to diver compensation. Divers are compensated based on the total pounds of geoducks harvested. While diver-specific data is unavailable, compensation is assumed to be highly variable and dependent on the number of days an individual participates in harvest diving. Table 2 estimates the average cost of compliance as a percentage of average diver incomes. Estimates were derived from 2013 DNR records of “days on water” for each diver.

As shown in the table, compliance costs as a percentage of income from diving for the average diver in the bottom quartile of dive-days are estimated to be larger than for the average diver in the upper quartile. This is because the bottom quartile appears to be composed of spot – or infrequent – divers, whose dive days range from only one day per year to 27 days per year.

Table 2. Estimated cost of compliance as a percentage of diver income (2013 dive data).

Percentage of Divers	Diver-Days on Water	Estimated Dive hrs*	Percentage of Total hrs	Average Income based on harvest rate assumption**		Compliance Costs as a % of average income	
				200 lbs/hr	300 lbs/hr	200 lbs/hr	300 lbs/hr
Top Quartile	1584	3960	41 %	\$60,923	\$91,385	0.6-0.7 %	0.4-0.5 %
Second Quartile	1198	2995	31 %	\$46,077	\$69,115	0.8-0.9 %	0.5-0.6 %
Third Quartile	837	2092	22 %	\$32,192	\$48,288	1.1-1.3 %	0.8- 0.9 %
Bottom Quartile	242	605	6 %	\$9,077	\$13,615	4.1-4.6 %	2.7-3.1 %

*Based on an average of 2.5 hours of dive time per day.

**Assumes diver compensation of \$1/lb.

Estimated Loss of Jobs

RCW 19.85.040 (2)(d) requires that the economic analysis include “(a)n estimate of the number of jobs that will be created or lost as the result of compliance with the proposed rule.”

Geoduck is a high value commodity. Although diver compliance costs may eventually affect profits for harvesters and purchasers, the relative cost of compliance with respect to the overall value of the geoduck commodity is not expected to impact industry demand for divers to harvest geoduck quotas.

Although no net loss in diver demand is anticipated, some percentage of divers may be determined to not be medically fit to dive following physician examination. It is difficult to estimate at this time what percentage of divers may not pass a physical examination.

The higher relative costs of compliance as a percentage of total harvest income may also result in a percentage of infrequent divers deciding to no longer pursue a diver license. This could result in an overall decrease in the number of licensed divers with more work being concentrated among fewer divers. Alternatively, some divers may find more work available and increase their dive days to compensate for the costs of compliance with the safety program.

IV. Actions Taken to Reduce Impact on Small Businesses

RCW 19.85.030 requires an agency to reduce the cost of compliance for small businesses where legal and feasible within the stated objectives of the underlying statutes. DNR considered a series of alternatives to minimize the costs for small businesses.

A large proportion of the cost of compliance is associated with the medical examination requirement. DNR considered an alternative without a medical requirement, but determined a diver safety program without a physical examination would not meet the intended objective of 2SHB 1764 to enhance diver safety. Although a dive physical represents a substantial cost, it is considered an industry standard to ensure divers are physically able to withstand the challenges of working under hyperbaric conditions. Annual dive physicals are required under L&I rules for Commercial Diving Operations (WAC 296-37-525) and recommended by the International Consensus Standards for Commercial Diving and Underwater Operations (2011). In response to industry concerns about the costs, DNR revised the proposed rule to reduce the frequency of physical examinations. Requiring a physical examination every three years, as opposed to annually, will reduce estimated costs by approximately 50 percent.

DNR proposes an annual signed acknowledgement that a diver has reviewed and understands the principles of dive safety as outlined by the geoduck harvest safety committee. A self-directed review of materials, as opposed to an in-person course, will reduce the cost and time associated with compliance. Larger employers (still fewer than the 50 employee threshold) may have been able to negotiate reduced per-person course rates that would have been unavailable to smaller businesses and resulted in a disproportionate burden on smaller businesses.

CPR/first aid and emergency oxygen training are two-year certifications. Any reduction in frequency of training might cause a lapse in certification and compromise diver safety.

V. Small Business Involvement in Development of Proposed Rules

2SHB 1764 directs DNR to establish a geoduck harvest safety committee and hold ongoing quarterly meetings. Committee membership includes representatives from the Washington Harvesters Association (vessel owners) and the Harvest Divers Association (divers). Both associations represent the interests of small businesses within the industry. The proposed rules are substantively based on the

committee report submitted in November 2013 outlining recommendations for a geoduck diver safety program. The revised proposal also attempts to address the concerns identified during public meetings held in May and June 2014.

DNR has posted information pertaining to the rulemaking on its agency website and reached out to individual divers as part of its geoduck harvest compliance program. Notice of the proposed rulemaking will be distributed to all licensed divers and prospective purchasers. One public hearing will be conducted to summarize the proposed rule, answer industry questions, and accept public comments.

VI. References

Association of Diving Contractors International. (2011). International Consensus Standards for Commercial Diving and Underwater Operations. 6th Edition.

Washington Department of Fish & Wildlife. (2011). Commercial wild stock geoduck fishery landings and ex-vessel value in Washington. Accessed April 14, 2014.

http://wdfw.wa.gov/fishing/commercial/geoduck/geoduck_historic_landings_value_table.pdf