



# 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 checked="" type="checkbox"/> Original Notice
<input type="checkbox"/> Expedited Rule Making--Proposed notice was filed as WSR _____; or	<input type="checkbox"/> Supplemental Notice to WSR _____
<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 demonstrate proof of compliance with the geoduck diver safety program in order to be maintained on a Department of Natural Resources (DNR) harvest plan of operations and/or obtain a commercial geoduck diver license under RCW 77.65.410. The annual requirement includes a combination of training qualifications and medical requirements. Training qualifications include CPR/first aid certification, emergency oxygen certification, Washington State Boater Education Card, and annual refresher of the principles of dive safety. Medical requirements include an annual hyperbaric dive physical. The Geoduck Diver Safety Program does not apply to tribal harvest or the aquaculture industry.

**Public Hearing Location(s):**

Olympia - Tuesday, May 27, 2014 / 6:00 PM

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

Port Townsend – Tuesday, June 3, 2014 / 6:00 PM

- Point Hudson Marina – Marina Room  
310 Hudson Street  
Port Townsend, WA 98368

**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](mailto:matt.goehring@dnr.wa.gov)  
fax (360)902-1786 by (date) June 7, 2014

**Assistance for persons with disabilities:** Contact

**Date of intended adoption:** July 1, 2014  
(Note: This is NOT the effective date)

Ms. Megan McKay by May 20, 2014

TTY (360) 902-1125 or ( ) \_\_\_\_\_

**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 by December 1, 2014. 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:

**CODE REVISER USE ONLY**

OFFICE OF THE CODE REVISER  
STATE OF WASHINGTON  
FILED

**DATE: April 22, 2014**

**TIME: 5:09 PM**

**WSR 14-09-107**

**DATE**  
April 22, 2014

NAME (TYPE OR PRINT)  
Megan Duffy

SIGNATURE

TITLE  
Deputy Supervisor, Aquatics & Environmental Protection

**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](mailto: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

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

No: Please explain:

NEW SECTION

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

(a) Beginning January 1, 2015, and annually thereafter, divers shall 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) Administering emergency oxygen 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.

(c) A signed acknowledgment, as outlined in (a)(iv) of this subsection, shall be required annually beginning January 1, 2016.

(3) Medical requirements.

(a) Annual examination of a diver's medical fitness to be exposed to hyperbaric conditions performed by an Undersea and Hyperbaric Medical Society (UHMS) or Association of Diving Contractors International (ADCI) certified physician;

(b) Scope of medical examination:

(i) Medical history;

(ii) Basic physical examination;

(iii) Diving related work history;

(iv) Tests as required by International Consensus Standards for Commercial Diving and Underwater Operations; and

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

(c) A physician report shall state that the patient has been examined in accordance with ADCI Physical Examination Standards and determined fit for occupational diving under hyperbaric conditions. Example physical examination and medical history forms are included in

the International Consensus Standards for Commercial Diving and Underwater Operations.

(d) Disqualifying conditions are outlined in International Consensus Standards for Commercial Diving and Underwater Operations. They may include, but are not limited to, history of seizure disorder, cystic or cavity disease of the lungs, significant obstructive or restrictive lung disease or recurrent pneumothorax, chronic inability to equalize sinus and middle ear pressure, significant central or peripheral nervous system disease or impairment, chronic drug or alcohol abuse, history of psychosis, significant hemoglobinopathies, significant malignancies, grossly impaired hearing, significant osteonecrosis, chronic conditions requiring continuous control by medication and pregnancy.

(e) Physician reports shall be dated within the six months preceding department review.

# **Small Business Economic Impact Statement**

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Geoduck diver safety program

*WAC 332-30-172*

April 22, 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 DNR plan of operations or issued a 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 \$813 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 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;
  - Administering emergency oxygen certification;
  - Washington State Boater Education Card; and
  - Signed acknowledgement confirming review and understanding of principles of dive safety.
2. Medical Requirements
  - Annual hyperbaric physical examination.

All requirements are effective January 1, 2015 except for the signed acknowledgement which goes into effect January 1, 2016.

## **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:

- the training certifications and medical examinations;
- the 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. The cost of the divers' time was estimated based on an average hourly wage of \$15 and the time required for training. 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 Required (hrs)	Course Cost	Time Cost	Total Cost	Annualized Total Cost
<b>Training requirements</b>						
CPR and first aid certification	Biennial	6	\$90	\$90	\$180	\$90
Administrating emergency oxygen certification	Biennial	2	\$95	\$30	\$125	\$63
Diver safety refresher	Annual	4	\$0	\$60	\$60	\$60
Washington State boater education course	Once	3	\$10	\$45	\$55	\$5.5
<b>Medical requirements</b>						
Physical examination of diver's fitness	Annual	3	\$550	\$45	\$595	\$595
<b>Annualized Total</b>		<b>16.3</b>	<b>\$644</b>	<b>\$170</b>	<b>\$813</b>	<b>\$813</b>

## 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 much 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	1.3 %	0.9 %
Second Quartile	1198	2995	31 %	\$46,077	\$69,115	1.7 %	1.1 %
Third Quartile	837	2092	22 %	\$32,192	\$48,288	2.4 %	1.6 %
Bottom Quartile	242	605	6 %	\$9,077	\$13,615	8.6 %	5.8 %

\*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 not be considered fit to dive following a hyperbaric physical 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.

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. DNR also proposes delaying the effective date of the signed acknowledgement requirement until the 2016 calendar year. This will reduce the burden for divers in the first year of required compliance and allow the harvest safety committee to develop review materials.

DNR considered an alternative without a medical requirement. However, DNR determined a diver safety program without an annual hyperbaric dive physical would not meet the intended objective of 2SHB 1764 to ensure diver safety within the state managed wildstock geoduck fishery. Although a dive physical represents a cost for divers, 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).

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.

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. Two public hearings will be conducted to summarize the proposed rule and accept public comments.

## **VI. References**

Association of Diving Contractors International. (2011). International Consensus Standards for Commercial Diving and Underwater Operations. 6<sup>th</sup> 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](http://wdfw.wa.gov/fishing/commercial/geoduck/geoduck_historic_landings_value_table.pdf)