
HOUSE BILL 1547

State of Washington 60th Legislature 2007 Regular Session

By Representatives Lantz, Rolfes, Chase, Seaquist, Appleton, McCoy, Linville, Dunshee and Morrell

Read first time 01/22/2007. Referred to Committee on Select Committee on Puget Sound.

1 AN ACT Relating to shellfish aquaculture in Puget Sound; amending
2 RCW 79.135.110; adding new sections to chapter 28B.20 RCW; adding new
3 sections to chapter 90.58 RCW; creating a new section; and providing an
4 expiration date.

5 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

6 NEW SECTION. **Sec. 1.** A new section is added to chapter 28B.20 RCW
7 to read as follows:

8 (1) The sea grant program at the University of Washington shall,
9 consistent with this section, commission a series of scientific
10 research studies that examines the possible effects, including the
11 cumulative effects, of the current prevalent geoduck aquaculture
12 techniques and practices on the natural environment in and around Puget
13 Sound, including the Strait of Juan de Fuca. The sea grant program
14 shall use funding provided from the geoduck aquaculture research
15 account created in section 2 of this act to directly perform the
16 research or to enter into and manage contracts with scientific
17 organizations or institutions.

18 (2) Prior to entering into a contract with a scientific
19 organization or institution, the sea grant program must:

1 (a) Analyze the credibility of the proposed party to the contract,
2 including whether the party has credible experience and knowledge and
3 has access to the facilities necessary to fully execute the research
4 required by the contract; and

5 (b) Require that all proposed parties to a contract fully disclose
6 any past, present, or planned future personal or professional
7 connections with the shellfish industry or public interest groups.

8 (3) All research commissioned under this section must be subjected
9 to a rigorous peer review process prior to being accepted and reported
10 by the sea grant program.

11 (4) To satisfy the minimum requirements of subsection (1) of this
12 section, the sea grant program shall commission and manage research
13 contracts examining the following potential effects of geoduck
14 aquaculture:

15 (a) At least one study that measures the environmental effects of
16 the structures commonly used in the aquaculture industry to protect
17 juvenile geoducks from predation. This study must focus on at least
18 two types of common structural predator exclusion devices: Dense
19 aggregations of plastic tubes and netting arrays. The exclusion
20 devices must be studied for their effects on the natural environment,
21 including:

22 (i) The physical and chemical characteristics of the sediment;

23 (ii) The abundances and diversity metrics for infauna, epifauna,
24 and submerged aquatic vegetation; and

25 (iii) The abundances and diversity indices of fouling organisms
26 associated with hard surface structures.

27 (b) At least one study that assesses the effects of harvesting
28 geoducks from intertidal commercial geoduck beds given the common
29 prevalent harvesting techniques. This study must assess the effects of
30 harvest disturbance and document patterns of postharvest succession in
31 species of benthic plants and animals. At a minimum, the study must
32 collect data for:

33 (i) The physical and chemical characteristics or sediments;

34 (ii) The abundances and diversity metrics for infauna, epifauna,
35 and submerged aquatic vegetation in sedimentary habitats;

36 (iii) The presence, size, and distribution of woody debris or other
37 large natural materials that provide solid substrata; and

38 (iv) The diversity of fouling organisms on solid substrata.

1 (c) At least one study that assesses the extent to which
2 unnaturally high densities of geoducks in standard aquaculture tracts
3 alter the ecological characteristics, including species diversity and
4 the abundance of other benthic organisms, of overlying waters when the
5 tracks are submerged. At a minimum, this study must address the
6 potential effects of:

7 (i) The removal of suspended phytoplankton and detritus by geoduck
8 filtration;

9 (ii) The enhancement of suspended detritus resulting from feces and
10 pseudofeces and its effect on light penetration; and

11 (iii) The alteration of concentrations of dissolved inorganic
12 nutrients and organic matter as a result of geoduck metabolism.

13 (d) At least one study to determine baseline information for
14 naturally existing parasites and diseases in wild geoduck populations.

15 (e) At least one study to explore whether genetic interactions
16 between cultured and wild geoduck may place wild stocks at risk by
17 measuring genetic differences between cultured and wild geoducks and
18 ascertaining the reproductive status of cultured geoduck relative to
19 wild geoduck. At a minimum, this study must include:

20 (i) A determination of age at maturation in cultured intertidal
21 geoducks;

22 (ii) An estimation of the proportion of cultured geoducks that
23 spawn during the course of a culture cycle;

24 (iii) The characterization of maturation synchrony between wild
25 subtidal geoduck and cultured intertidal geoduck;

26 (iv) A comparison of genetic variability between cultured geoduck
27 and wild geoduck;

28 (v) An estimation of the relative parental contributions to farmed
29 geoduck; and

30 (vi) Testing for evidence of local adaptation.

31 (f) At least one study that examines if the use of sterile triploid
32 geoducks would diminish the genetic interactions between wild and
33 cultured geoducks. At a minimum, this study must include:

34 (i) A comparison of maturation dynamics in triploid and diploid
35 geoducks; and

36 (ii) An investigation of the rate of reversion to diploidy in
37 triploid geoducks.

1 (g) At least one study that examines the carrying capacity of
2 intertidal lands as they relate to geoducks.

3 (h) At least one study that determines the reproductive success of
4 cultured geoducks. At a minimum, this study must address:

5 (i) An estimation of fecundity at age in geoducks aged two to six
6 years;

7 (ii) A determination of the effect of planting density on
8 fertilization success; and

9 (iii) A comparison of the larval viability of cultured and wild
10 geoducks.

11 (5) When appropriate, all research commissioned under this section
12 must address localized and cumulative effects of geoduck aquaculture.

13 (6) The sea grant program and the University of Washington are
14 prohibited from retaining greater than fifteen percent of any funding
15 provided to implement this section for administrative overhead or other
16 deductions not directly associated with conducting the research
17 required by this section.

18 (7) All research commissioned under this section must be completed
19 and the results reported to the appropriate committees of the
20 legislature by December 1, 2013. However, the sea grant program shall
21 prioritize the studies required by this section and complete and report
22 the results of studies that require a shorter timeline for completion
23 in advance of the 2013 deadline. In addition, the sea grant program
24 shall provide the appropriate committees of the legislature with annual
25 reports updating the status and progress of the required studies.

26 NEW SECTION. **Sec. 2.** A new section is added to chapter 28B.20 RCW
27 to read as follows:

28 The geoduck aquaculture research account is created in the custody
29 of the state treasurer to receive any legislative appropriations
30 earmarked for the account. Expenditures from the account may only be
31 used by the sea grant program for the geoduck research projects
32 identified by section 1 of this act. Only the president of the
33 University of Washington or the president's designee may authorize
34 expenditures from the account. The account is subject to the allotment
35 procedures under chapter 43.88 RCW, but an appropriation is not
36 required for expenditures.

1 **Sec. 3.** RCW 79.135.110 and 2005 c 155 s 701 are each amended to
2 read as follows:

3 (1) The beds of all navigable tidal waters in the state lying below
4 extreme low tide, except as otherwise prohibited by this section and by
5 Article XV, section 1 of the state Constitution shall be subject to
6 lease for the purposes of planting and cultivating oyster beds, or for
7 the purpose of cultivating clams or other edible shellfish, or for
8 other aquaculture use, for periods not to exceed thirty years.

9 (2) Except for contracts that have had a request for offer issued
10 prior to the effective date of this section, the department is
11 prohibited from entering into any leases that would permit the
12 commercial aquaculture of geoducks on state-owned aquatic lands
13 associated with Puget Sound, including the Strait of Juan de Fuca until
14 one full calendar year after the sea grant program at the University of
15 Washington reports to the legislature the results of the studies
16 required by section 1 of this act.

17 (3) Nothing in this section shall prevent any person from leasing
18 more than one parcel, as offered by the department.

19 NEW SECTION. **Sec. 4.** A new section is added to chapter 90.58 RCW
20 to read as follows:

21 (1) All geoduck aquaculture operations located or proposed to be
22 located on lands or waters associated with Puget Sound or the Strait of
23 Juan de Fuca, regardless of whether or not the operation would
24 otherwise require permitting under this chapter or whether or not the
25 operation is included in an approved local master program, may only
26 exist and operate if the operation receives a permit as a conditional
27 use under RCW 90.58.090(5).

28 (2) The department, prior to approving a geoduck aquaculture
29 operation as a conditional use, shall ensure that the permit requires
30 the geoduck aquaculture operation to satisfy, at a minimum, the
31 following standards:

32 (a) That an adequate baseline survey of the aquatic habitat in
33 existence on the land proposed to be planted with geoduck seed has been
34 completed to the department's satisfaction;

35 (b) The geoduck aquaculture operation is prepared and planted in a
36 way that establishes adequate setbacks and buffers, as determined by

1 the department, from eelgrass beds, herring and smelt spawning grounds,
2 and the habitat of species listed on the state or federal endangered
3 species list;

4 (c) The timing of physical operations on the geoduck aquaculture
5 operation is limited to times determined by the department to minimize
6 ecosystem and neighborhood impacts;

7 (d) The geoduck aquaculture operator has executed a bond in an
8 amount established by the department to adequately fund cleanup and
9 mitigation costs incurred by the operation;

10 (e) All equipment used on the geoduck aquaculture operation,
11 including the maintenance, placement, and design of the equipment, is
12 consistent with specifications adopted by the department to minimize
13 noise, bird entrapment, material escape, and other environmental
14 impacts;

15 (f) Geoduck seed used for planting will be generated from brood
16 stock native to the region of the planting and genetic profiling of the
17 brood stock will be completed on a time schedule developed by the
18 department;

19 (g) Brood stock and geoduck seed will be tested for shellfish
20 pathogens by a certified laboratory according to standards developed by
21 the department;

22 (h) Postharvest surveys will be completed according to
23 specifications identified by the department to determine potential
24 impacts to marine vegetation and other habitat alterations;

25 (i) All records will be kept and made available by the geoduck
26 aquaculture operator in a manner identified by the department; and

27 (j) A provision exists in the permit to allow the department or the
28 local government to revoke the permit of any geoduck aquaculture
29 operation that is found to have violated any of the conditions of this
30 section.

31 (3) The department shall, in the administration of this section:

32 (a) Consider all cumulative effects of geoduck aquaculture
33 operations as well as localized effects; and

34 (b) Consult with, and rely on the information provided by, the
35 department of fish and wildlife.

36 (4) Decisions made by the department under this section regarding
37 the approval of permitting for geoduck aquaculture operations are
38 subject to RCW 43.21C.030.

1 NEW SECTION. **Sec. 5.** A new section is added to chapter 90.58 RCW
2 to read as follows:

3 The permit conditions placed on geoduck aquaculture operations by
4 section 4 of this act are intended to serve as minimal, basic
5 protections necessary to preserve the health and enjoyment of Puget
6 Sound while the sea grant program at the University of Washington
7 commissions a series of scientific studies on the effects of geoduck
8 aquaculture on the natural environment as provided in section 1 of this
9 act. It is the intent of the legislature to revisit these protections
10 after the sea grant program delivers its final report to the
11 appropriate committees of the legislature.

12 NEW SECTION. **Sec. 6.** The department of ecology may adopt any
13 rules, consistent with chapter 34.05 RCW, that it deems necessary to
14 administer this act.

15 NEW SECTION. **Sec. 7.** Sections 1 and 2 of this act expire July 1,
16 2014.

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