

2007-01268

March 25



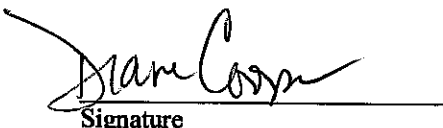
US Army Corps of Engineers®
Seattle District

Nationwide Permit 48 Report Form



1. Name of Company Taylor Shellfish		Address SE 130 Lynch Road Shelton, Washington	
Point of Contact Diane Cooper			
Phone Number (360) 426-6178		Email Address DianeC@taylorshellfish.com	
2. <input checked="" type="checkbox"/> Attach a copy of permit, license or lease from a state or local agency specifically authorizing commercial aquaculture activities at the Project Area(s) described below (must be obtained prior to March 12, 2007). Note: If there are multiple project areas, you must include the location, size, description of culture and harvesting method, name of cultivated species, for each project area. Attach separate forms as appropriate.			
3. Project Location: : <input checked="" type="checkbox"/> Attach map(s) showing the vicinity of the project and the boundaries of the project area.			
Latitude See attached maps.		Project Street Address (if applicable) NA	
Longitude See attached maps			
4. Size of Project Area Approximately 75 acres		5. Description of Culture and Harvesting Method See attached description matrix.	
6. Name of the Cultivated Species Manila, geoduck, littleneck clams, Pacific, Kumamoto, Olympia, Eastern oysters.		7. Are canopy predator nets being used? Yes.	
8. Yes We comply/will comply with all Nationwide Permit general and regional conditions.			

Please indicate if the aquaculture activity includes and of the following:

Pre-construction Notification (PCN) Activity		Yes	No
1.	The Project Area is greater than 100 acres.		x
2.	There is any reconfiguration of the aquaculture activity, such as relocating existing operations into portions of the project area not previously used for aquaculture activities.		x
3.	There is a change in species being cultivated.		x
4.	There is a change in culture methods (e.g., from bottom culture to off-bottom culture).		x
5.	Dredge harvesting, tilling, or harrowing is conducted in areas inhabited by submerged aquatic vegetation.		x
Has PCN been Triggered?			
YES	<p>If yes for any of the above, then pre-construction notification has been triggered.</p> <ul style="list-style-type: none"> • Submit the NWP 48 Reporting Form • Submit the PCN Form section of this form below. 		
NO	For all projects that do not trigger the pre-construction notification requirements of NWP 48, submission of a brief report is required. The form above will satisfy this requirement.		
Report Form Completed By:			
D. Cooper			6/13/07
Name (Print)	Signature		Date

Following submission of this one-time report, no further reporting is necessary. However, if there are any changes to the operation that require Department of the Army authorization, then pre-construction notification is required if the proposed changes meet any of the pre-construction notification triggers. Yearly pre-construction notification will not be required for continued operation of existing shellfish aquaculture operations that trigger only pre-construction notification activities 1 and 5.

Replaces original license as of 1/2/2007 to reflect growing area changes

State of Washington
Department of Health
Office of Shellfish and Water Protection

SHELLFISH OPERATION LICENSE AND CERTIFICATE OF APPROVAL

THIS IS TO CERTIFY that the:

TAYLOR SHELLFISH COMPANY INC

establishment owned or operated by

JEFF PEARSON

located at

130 LYNCH ROAD SE
SHELTON, WA 98584

has been inspected and found to meet the sanitary requirements of Chapter 69.30 RCW and the rules and regulations of the State Board of Health, and is hereby licensed as a commercial shellfish operation. A certificate of approval as prescribed in Chapters 69.30 RCW and 246-282 WAC is hereby granted for the harvesting of shellfish for human consumption from the following general location(s):

Bay Center, Bruceport, Cedar River, Eld Inlet, Hammersley Inlet, Hood Canal 3, Hood Canal 8, McMicken Island, Nahcotta, Naselle River, Nemah River, Nisqually Reach, North Bay, North River, Oakland Bay, Peale Passage, Pickering Passage, Samish Bay
Skookum Inlet, Stony Point, Stretch Island, Totten Inlet, West Key Peninsula

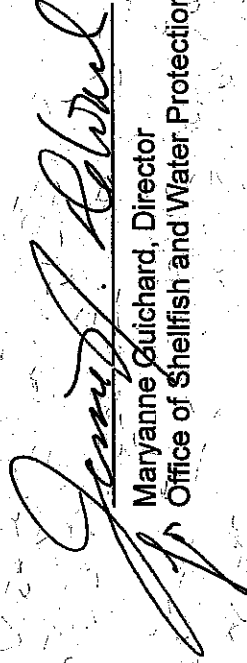
Effective Date of Change 1/2/2007

Original Issue Date 9/29/2006

License No: 0046

Washington Cert. No: WA- 0046-SP

Shucker-Packer



Maryanne Guichard, Director
Office of Shellfish and Water Protection

This license/certificate expires 9/30/2007, and is revocable and NOT transferable.

Taylor Resources *Head of Oakland Bay*

General Information								
Bed ID #	Specific Location	Bed Name	Bay or Inlet	County	Aquatic Farm Reg	DOH Cert #	Sec., Twp. & Rge.	Gr. Area Class.
TOB80	Head of Bay	Area 1	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB81	Head of Bay	Area 2	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB82	Head of Bay	Area 3	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB83	Head of Bay	Area 4	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB84	Head of Bay	Area 5	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB85	Head of Bay	Area 6	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB86	Head of Bay	Area 7	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB87	Head of Bay	Area 8	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB88	Head of Bay	Area 9	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB89	Head of Bay	Area 10	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB90	Head of Bay	Area 11	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB91	Head of Bay	Area 12	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB92	Head of Bay	Area 13	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB93	Head of Bay	Area 14	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB94	Head of Bay	Area 15	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB95	Head of Bay	Area 16	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB96	Head of Bay	Area 17	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB97	Head of Bay	Area 18	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB98	Head of Bay	Area 19	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB99	Head of Bay	Area 20	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB100	Head of Bay	Area 21	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB101	Head of Bay	Area 22	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB102	Head of Bay	Area 23	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB103	Head of Bay	Area 24	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB104	Head of Bay	Area 25	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB105	Head of Bay	Area 26	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB106	Head of Bay	Area 27	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB107	Head of Bay	Area 28	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB108	Head of Bay	Area 29	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB109	Head of Bay	Area 30	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB110	Head of Bay	Area 31	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB111	Head of Bay	Area 32	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB112	Head of Bay	Area 33	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB113	Head of Bay	Area 34	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB114	Head of Bay	Area 35	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB115	Head of Bay	Area 36	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB116	Head of Bay	Area 37	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB117	Head of Bay	Area 38	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB118	Head of Bay	Area 39	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB119	Head of Bay	Area 40	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB120	Head of Bay	Area 41	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB121	Head of Bay	Area 42	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB122	Head of Bay	Area 43	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional

Appendix C

Taylor Resources *Head of Oakland Bay*

General Information								
Bed ID #	Specific Location	Bed Name	Bay or Inlet	County	Aquatic Farm Reg	DOH Cert #	Sec., Twp. & Rge.	Gr. Area Class.
TOB123	Head of Bay	Area 44	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB124	Head of Bay	Area 45	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB125	Head of Bay	Area 46	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB126	Head of Bay	Area 47	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB127	Head of Bay	Area 48	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB128	Head of Bay	Area 49	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional
TOB129	Head of Bay	Area 50	Oakland Bay	Mason	8256-04	WA-46-SP	2,3-20N-3W	conditional

Appendix C
Sensitive Information

Taylor Resources Head of Oakland Bay

General Information			Cultivation Activities											
Bed ID #	Specific Location	Bed Name	Predator Ct		Pest Ct	Bed Maint. and Farming Activities								
			oyster drills	diving ducks	trespassers	dike draining	seeding	cultching (shell mixed w/ gravel)	"wind row" dug to enhance settlement	managed harvest, immature clams left	record keeping - seeding, harvest	water quality efforts		
TOB80	Head of Bay	Area 1	x	x	x		x	x	x	x	x	x		
TOB81	Head of Bay	Area 2	x	x	x		x	x	x	x	x	x		
TOB82	Head of Bay	Area 3	x	x	x	x	x	x	x	x	x	x		
TOB83	Head of Bay	Area 4	x	x	x	x	x	x	x	x	x	x		
TOB84	Head of Bay	Area 5	x	x	x	x	x	x	x	x	x	x		
TOB85	Head of Bay	Area 6	x	x	x		x	x	x	x	x	x		
TOB86	Head of Bay	Area 7	x	x	x		x	x	x	x	x	x		
TOB87	Head of Bay	Area 8	x	x	x		x	x	x	x	x	x		
TOB88	Head of Bay	Area 9	x	x	x		x	x	x	x	x	x		
TOB89	Head of Bay	Area 10	x	x	x		x	x	x	x	x	x		
TOB90	Head of Bay	Area 11	x	x	x		x	x	x	x	x	x		
TOB91	Head of Bay	Area 12	x	x	x		x	x	x	x	x	x		
TOB92	Head of Bay	Area 13	x	x	x	x	x	x	x	x	x	x		
TOB93	Head of Bay	Area 14	x	x	x		x	x	x	x	x	x		
TOB94	Head of Bay	Area 15	x	x	x		x	x	x	x	x	x		
TOB95	Head of Bay	Area 16	x	x	x		x	x	x	x	x	x		
TOB96	Head of Bay	Area 17	x	x	x		x	x	x	x	x	x		
TOB97	Head of Bay	Area 18	x	x	x		x	x	x	x	x	x		
TOB98	Head of Bay	Area 19	x	x	x		x	x	x	x	x	x		

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Taylor Resources Head of Oakland Bay

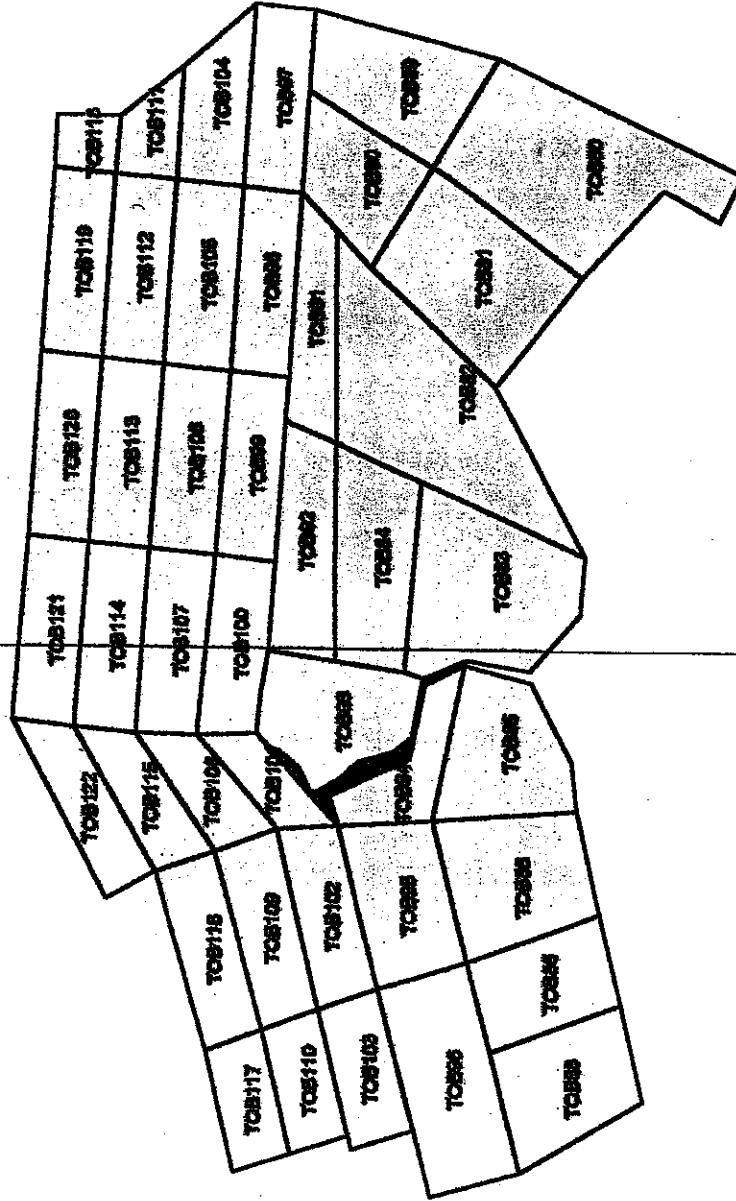
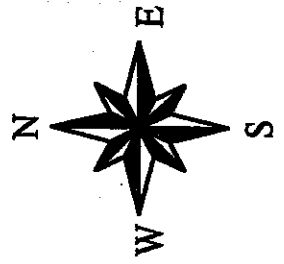
General Information			Cultivation Activities											
Bed ID #	Specific Location	Bed Name	Predator Ct		Pest Ct	Bed Maint. and Farming Activities								
			oyster drills	diving ducks	trespassers	dike draining	seeding	cultching (shell mixed w/ gravel)	"wind row" dug to enhance settlement	managed harvest, immature clams left	record keeping - seeding, harvest	water quality efforts		
TOB099	Head of Bay	Area 20	x	x	x		x	x	x	x	x	x		
TOB100	Head of Bay	Area 21	x	x	x		x	x	x	x	x	x		
TOB101	Head of Bay	Area 22	x	x	x		x	x	x	x	x	x		
TOB102	Head of Bay	Area 23	x	x	x		x	x	x	x	x	x		
TOB103	Head of Bay	Area 24	x	x	x		x	x	x	x	x	x		
TOB104	Head of Bay	Area 25	x	x	x		x	x	x	x	x	x		
TOB105	Head of Bay	Area 26	x	x	x		x	x	x	x	x	x		
TOB106	Head of Bay	Area 27	x	x	x		x	x	x	x	x	x		
TOB107	Head of Bay	Area 28	x	x	x		x	x	x	x	x	x		
TOB108	Head of Bay	Area 29	x	x	x		x	x	x	x	x	x		
TOB109	Head of Bay	Area 30	x	x	x		x	x	x	x	x	x		
TOB110	Head of Bay	Area 31	x	x	x		x	x	x	x	x	x		
TOB111	Head of Bay	Area 32	x	x	x		x	x	x	x	x	x		
TOB112	Head of Bay	Area 33	x	x	x		x	x	x	x	x	x		
TOB113	Head of Bay	Area 34	x	x	x		x	x	x	x	x	x		
TOB114	Head of Bay	Area 35	x	x	x		x	x	x	x	x	x		
TOB115	Head of Bay	Area 36	x	x	x		x	x	x	x	x	x		
TOB116	Head of Bay	Area 37	x	x	x		x	x	x	x	x	x		
TOB117	Head of Bay	Area 38	x	x	x		x	x	x	x	x	x		

Appendix C
Sensitive Information

Taylor Resources Head of Oakland Bay

General Information			Cultivation Activities											
Bed ID #	Specific Location	Bed Name	Predator Ct.	Pest Ct.	oyster drills	diving ducks	trespassers	dike draining	seeding	cultching (shell mixed w/ gravel)	"wind row" dug to enhance settlement	managed harvest, immature clams left	record keeping - seeding, harvest	water quality efforts
TOB118	Head of Bay	Area 39	x	x	x	x	x			x	x	x	x	x
TOB119	Head of Bay	Area 40	x	x	x	x	x			x	x	x	x	x
TOB120	Head of Bay	Area 41	x	x	x	x	x			x	x	x	x	x
TOB121	Head of Bay	Area 42	x	x	x	x	x			x	x	x	x	x
TOB122	Head of Bay	Area 43	x	x	x	x	x			x	x	x	x	x
TOB123	Head of Bay	Area 44	x	x	x	x	x			x	x	x	x	x
TOB124	Head of Bay	Area 45	x	x	x	x	x			x	x	x	x	x
TOB125	Head of Bay	Area 46	x	x	x	x	x			x	x	x	x	x
TOB126	Head of Bay	Area 47	x	x	x	x	x			x	x	x	x	x
TOB127	Head of Bay	Area 48	x	x	x	x	x			x	x	x	x	x
TOB128	Head of Bay	Area 49	x	x	x	x	x			x	x	x	x	x
TOB129	Head of Bay	Area 50	x	x	x	x	x			x	x	x	x	x

Head of Bay



0.24 Miles

0.12

0

0.12





Manila Clam Culture

Introduction. Taylor Shellfish Farms cultivates Manila clams on several properties located throughout Washington State. The primary method of clam cultivation is bottom culture where clams are grown in the intertidal zone in natural or enhanced substrate.

Bed Preparation. Prior to planting clam seed on the tidelands, the tideland beds are prepared in a number of ways depending on the location. This bed preparation increases the chances of seed survival and allows for full use of available land. The types of preparatory work include raking debris, including old oyster shells, gravelling to enhance the substrate, burying geotech fabric, cleaning the beds of algae, mussel mats and other growths, and conducting environment assessments of conditions such as salinity and water quality. In addition to these types of activities, other preparations are done including laying predator netting, fencing, and boundary setting. In some areas, the netting is removed within a couple days after the clams have burrowed sufficiently into the substrate.

Seeding. Most of the clam seed used comes from Taylor Shellfish Farms hatchery and nursery facilities. Spring and early summer is the normal season for planting clams. The clams range in variable sizes depending on the site-specific environmental conditions.

There are several methods used for broadcasting clam seed onto the tidelands. Some of which include hand spreading seed on an incoming tide when water depth is approximately 4 inches, hand spreading seed on an outgoing tide when water depth is approximately 2 to 3 feet deep, or spreading seed from a boat at high tide.

The method of clam seeding is dependent on site-specific factors including types of predators and weather conditions.

In some areas a natural setting of Manila clams will occur, particularly in the Hood Canal. To prepare an area for capturing the natural set, substrate covers, or predator nets, are removed and the substrate cleaned of debris. These occurrences are unpredictable and are therefore not often exploited.

Bed Assessment and Maintenance. After each growing season, surveys and samplings are conducted to assess seed survival and spreading adequacy. One square foot of substrate is sampled using four screen sizes. Depending on the location, seed handling techniques, and bed preparation, the survival rate is expected to yield at least 20-25 clams per square foot at maturity.

Beds are maintained by removing debris, keeping nets in check, and monitoring clam growth and mortalities.

Oyster Culture

Introduction. The culture of oysters has taken place for many decades on tidelands owned and/or managed by Taylor Shellfish Farms. Many of the practices have improved and are now more efficient, productive and environmentally beneficial. Productive oyster ground is dependent on a number of variables including salinity, temperature, substrate, water quality, and types of predators. Oyster ground can be classified as seed ground, growout ground, fattening ground, or transplant area or by growout method such as longline or bag area.

There are different approaches that can be taken to oyster growout depending on the market, the beach, and the environment.

For oysters destined to supply the half shell market, the growout method can be bag or bottom culture. Although there are a number of other methods, Taylor Shellfish Farms primarily uses bags for growing small single oysters. For the shucked meat market, the method will be determined primarily by environmental conditions such as substrate and predators.

Taylor Shellfish Farms successfully cultures several species of oyster including the Pacific oyster (*Crassostrea gigas*), Olympia oyster (*Ostrea lurida*), Kumamoto oyster (*Crassostrea sikamea*), Eastern oyster (*Crassostrea virginica*) the European flat oyster (*Ostrea edulis*).

Bottom Culture. Ground that is sufficiently hard or prepared can support bottom culture. Seed oysters attached to cultch shell are sprayed from the deck of barges onto marked beds at an even rate to achieve approximately ten oysters per square foot. Oysters are left on beds until harvest.

Bed Preparation. Prior to planting a new crop of oysters, an oyster bed may be cleaned with the use of a dredge bag and cleaned of drills and other pests. Oysters remaining on the bed after a harvest as well as debris and mud build-up are removed during this process.

In areas suitable for bottom culture, substrate enhancement may be done to improve the substrate and prepare the ground for the spreading of a new crop. Some areas may have appropriate substrate to spread oysters directly onto ground without enhancement efforts. Substrate enhancement is done by spraying crushed shell and/or washed gravel from the deck of a barge using a pump and hose. Several runs are made over marked ground to ensure an even spread of material.

Harvesting. Bottom culture oysters are harvested either by hand or in some areas, such as Willapa Bay, oysters are harvested by using a mechanical dredge. In those areas, the mechanical dredge is lowered to the bottom at high tide by a boom or hydraulic winch and dragged along the bottom scooping up oysters. For hand harvesting, workers fork or hand

