DEPARTMENT OF ECOLOGY
FEB 2 72017
WATER QUALITY PROGRAM

# ANNUAL PRE-TREATMENT PLAN FOR ZOSTERA JAPONICA CONTROL ON COMMERCIAL CLAM BEDS IN WILLAPA BAY FOR WIEGARDT & SONS INC.

# Submitted to:

Washington Department of Ecology

March 1, 2017

Author:

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### **Annual Pre-Treatment Plan**

The locations of acreage planned for treatment in 2017, including GPS coordinates of each corner of the area, size in acres of each area and cooperating adjacent land owners are shown in Table 1.

Table 1. Coordinates of the overall area where japonica control will be implemented. Actual acres to be treated will be less than those indicated by the overall bed boundaries.

Part Carl   Part	Bed Name	Parcel	Acres	Corner Coordinates		
46,6061   -124,0351   Coast Seafoods   46,6068   -124,0359   Stackpole Harbor LLC.   46,6068   -124,0359   Stackpole Harbor LLC.   46,6083   -124,0378   Taylor Resources Inc.   46,6097   -124,0330   Grassy Island Clam Farms   46,6097   -124,0330   Grassy Island Clam Farms   46,6097   -124,0330   Grassy Island Clam Farms   46,6097   -124,0310   -124,0310   -124,0320   -124,0320   -124,0320   -124,0320   -124,0320   -124,0320   -124,0320   -124,0320   -124,0320   -124,0320   -124,0324   -124,0326   -124,0333   -124,0256   -124,0333   -124,0256   -124,0345   -124,0345   -124,0345   -124,0345   -124,0345   -124,0374   -124,0374   -124,0374   -124,0374   -124,0374   -124,0374   -124,0374   -124,0374   -124,0374   -124,0395   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0195   -124,0320   -124,0				Latitude	Longitude	- Cooperating Landowners
146.6068   -124.0359   Stackpole Harbor LLC.	E108, E232,	79005000108 790500179 7900500179	284	46.6061	-124.0382	Heckes Clams Inc.
124.0378   Taylor Resources Inc.   46.6083   -124.0378   Taylor Resources Inc.				46.6061	-124.0351	Coast Seafoods
124.0330   Grassy Island Clam Farms				46.6068	-124.0359	Stackpole Harbor LLC.
## Heckes Clams Inc.    Page				46.6083	-124.0378	Taylor Resources Inc.
E94, E228, 79005000108 E108, E232, 79005000179 E94, E79, E3 7900500000 E94, E79, E3 79005000000 E94, E79, E3 79004000001 E94, E79, E3 790040000174 E95, D75, D76 E79004000074 E79004000074 E79004000074 E79004000075 E790040000075 E790040000075 E790040000075 E790040000075 E790040000075 E790040000000 E790040000000000000000000000000000000000				46.6097	-124.0330	Grassy Island Clam Farms
E94, E232, 7900500108				46.6074	-124.0330	
Heckes Clams Inc.  The provided Heckes Clams Inc.  1051  The provided Heckes Clams Inc.  46.694  46.695  46.695  46.6964  46.6986  46.6986  46.6987  46.6987  46.6988  46.6988  46.6988  46.6988  46.6988  46.6989  46.6989  46.6989  46.6989  46.6989  46.6989  46.6989  46.6989  46.6989  46.6989  46.6989  46.4998				46.6079	-124.0310	
Heckes Clams Inc.  146.6035 -124.0320 46.6033 -124.0284 46.5984 -124.0256 46.5981 -124.0333 46.6024 -124.0345 46.6039 -124.0374 46.6039 -124.0374  46.638 -124.0268 Heckes Clams Inc.  179004000074 79004000004 79004000075 79004000004 79004000075 79004001075 79004003075 79004003004  115 46.4636 -124.0195 79004003004 46.4634 -124.0259  46.4502 -124.0211 Taylor Resources Inc. 46.4502 -124.0142 Heckes Clams Inc. 46.4480 -124.0195 46.4480 -124.0195  1167 13112255067 80 46.5952 -124.0341 46.5956 -124.0302 46.5942 -124.0240 46.5845 -124.0202 46.5845 -124.0202 46.5845 -124.0202				46.6044	-124.0290	
46.5984 -124.0256 46.5981 -124.0333 46.6024 -124.0345 46.6039 -124.0374  46.4538 -124.0268 Heckes Clams Inc.  79004000091 79004000074 79004000074 79004000075 79004003075 79004003075 79004003075 79004003075 79004003004  46.4539 -124.0194  46.4539 -124.0195 46.4634 -124.0259  46.4634 -124.0259  46.4634 -124.0259  46.4502 -124.0211 Taylor Resources Inc.  46.4492 -124.0142 Heckes Clams Inc.  46.4492 -124.0148 46.4492 -124.0195  46.5956 -124.0302 46.5956 -124.0302 46.5956 -124.0302 46.5942 -124.0240 46.5942 -124.0202 46.5845 -124.0202 46.5845 -124.0202 46.5845 -124.0202				46.6035	-124.0320	
Heckes Clams Inc.  1091, D74, D4, D75, D76  1091, D74, D4, D79004000014  115  115  115  115  115  115				46.6033	-124.0284	
Heckes Clams Inc.  79004000091 79004000091 79004000004 79004000004 79004000004 79004000004 79004000004 79004000004 79004000004 790040000051 79004000004 790040000051 46.4539 -124.0195 46.4636 -124.0195 46.4634 -124.0259  46.4502 -124.0259  46.4502 -124.0142 Heckes Clams Inc.  46.492 -124.0142 Heckes Clams Inc.  46.492 -124.0148 46.4480 -124.0195  46.5952 -124.0341 46.5956 -124.0302 46.5956 -124.0302 46.5942 -124.0240 46.5845 -124.0202 46.5845 -124.0202 46.5843 -124.0251				46.5984	-124.0256	
Heckes Clams Inc.  79004000091 79004000074 D91, D74, D4, D75, D76 P3004003075 79004003004 P3004003004 D75, D76 P3004003004 D75, D76 P3004003004 D75, D76 P3004000051 P3004000004 P3004000051 P30040000				46.5981	-124.0333	
Heckes Clams Inc.  79004000091 79004000074 79004000004 79004000004 79004000004 79004000004 115 46.4539 -124.0194 46.4539 -124.0195 46.4636 -124.0195 79004003075 79004003004 46.4634 -124.0259  46.4502 -124.0142 Heckes Clams Inc.  46.4502 -124.0142 Heckes Clams Inc.  46.4502 -124.0142 46.492 -124.0148 46.4492 -124.0195  46.5952 -124.0341 46.5956 -124.0302 46.5956 -124.0302 46.5845 -124.0240 46.5845 -124.0202 46.5843 -124.0251				46.6024	-124.0345	
D91, D74, D4, D75, D76				46.6039	-124.0374	
D91, D74, D4, D75, D76 D75, D76 D7904000004 D75, D76 D7904003075 T79004001075 T79004003004 D75, D76		79004000074 79004000004 79004003075 79004001075	115	46.4538	-124.0268	Heckes Clams Inc.
D75, D76 79004003075 79004003004 46.4634 -124.0259  46.4634 -124.0259  46.4502 -124.0211 Taylor Resources Inc.  46.4502 -124.0142 Heckes Clams Inc.  46.4492 -124.0148  46.4480 -124.0195  46.5952 -124.0341  46.5956 -124.0302  46.5942 -124.0240  46.5845 -124.0202  46.5843 -124.0251				46.4539	-124.0194	
79004003004  46.4634  -124.0259  46.4502  -124.0211  Taylor Resources Inc.  46.4502  -124.0142  Heckes Clams Inc.  46.4492  -124.0148  46.4480  -124.0195  TL67  13112255067  80  46.5942  -124.0202  46.5843  -124.0251				46.4636	-124.0195	
D51 79004000051 46 46.4502 -124.0142 Heckes Clams Inc.  46.4492 -124.0148  46.5952 -124.0341  46.5956 -124.0302  46.5942 -124.0240  46.5845 -124.0202  46.5843 -124.0251				46.4634	-124.0259	
D51 79004000051 46 46.4492 -124.0148 46.4480 -124.0195 46.5952 -124.0341 46.5956 -124.0302 46.5942 -124.0240 46.5845 -124.0202 46.5843 -124.0251	D51	79004000051	46	46.4502	-124.0211	Taylor Resources Inc.
46.4492 -124.0148 46.4480 -124.0195  46.5952 -124.0341 46.5956 -124.0302 46.5942 -124.0240 46.5845 -124.0202 46.5843 -124.0251				46.4502	-124.0142	Heckes Clams Inc.
46.5952 -124.0341 46.5956 -124.0302 46.5942 -124.0240 46.5845 -124.0202 46.5843 -124.0251				46.4492	-124.0148	
TL67 13112255067 80 46.5942 -124.0240 46.5845 -124.0202 46.5843 -124.0251				46.4480	-124.0195	
TL67 13112255067 80 46.5942 -124.0240 46.5845 -124.0202 46.5843 -124.0251	TL67	13112255067	80	46.5952	-124.0341	
TL67 13112255067 80 46.5845 -124.0202 46.5843 -124.0251				46.5956	-124.0302	
46.5845       -124.0202         46.5843       -124.0251				46.5942	-124.0240	
				46.5845	-124.0202	
46.5902 -124.0289				46.5843	-124.0251	
				46.5902	-124.0289	

			46.4698	-123.9942	
D103 N 1/2, D103 S 1/2, D72, D108	79004001103 79004003103 79004000072 79004000108	32	46.4698	-123.9947	
			46.4729	-123.9949	
			46.4883	-123.9930	
			46.4885	-123.9940	

# **Annual Pre-Treatment Plan (Maps)**

Figure 1-4 shows the locations of proposed japonica treatments for 2017. In 2016 treatments occurred on beds E79, E108, E228 and E232.



Figure 1. Parcels 79005000232, 79005000108, 790500179, 7900500179, 79005003003

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Figure 2. Parcels 79004000091, 79004000074, 79004000004, 79004003075, 79004001075, 79004003004, 79004000051.

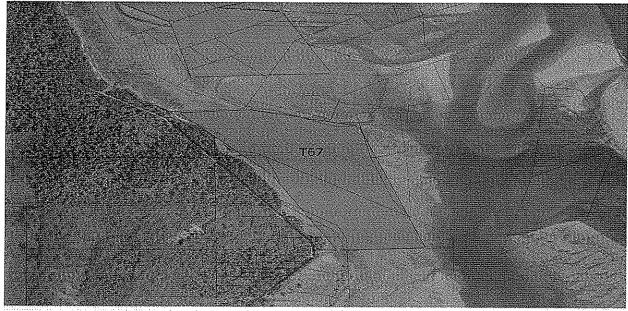


Figure 3. Parcel 13112255067

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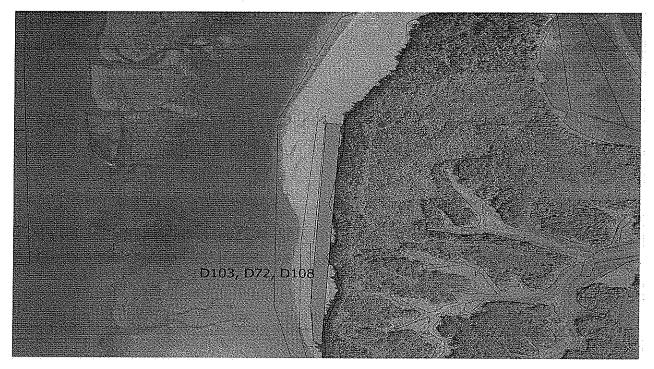


Figure 4. Parcels 79004001103, 79004003103, 79004000072, 79004000108

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# **Signature Requirements**

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WATER QUALITY PROGRAM I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of those persons directly responsible for gathering information, the information in the Pretreatment Plan is, to the best of my knowledge and belief, true, accurate, and complete and will be updated as necessary. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

Signature Date