

Current clause	New Clause	Change	Reason
Whole document		 General re organisation of clauses, sections and parts. Rewording of clauses to make clear or read better. No change of intent. 	To make whole document flow better and improve grammar and or understanding of intent of some clauses.
4 (1) definitions	1.1 (1)	Delete definitions BMS BMS BMS depot BMS Depot Operator BMS Sorting Shed BMS Sorting shed operator Growing area Harvest Harvest Harvest operator Harvest vessel Landbased aquaculture facility Relay Sanitary survey Transport operator Vehicle Vessel Wet storage	Deleted those which are defined in the Animal Products (Regulated Control Scheme – Bivalve Molluscan Shellfish) Regulations 2006.
4 (1) definitions	1.1 (1)	Deleted definitions	Common term word/s no definition needed.



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4 (1) definitions	1.1 (1)	Deleted definitions	Explained meaning or concept where word used.
4 (1) definitions	1.1 (1)	Delete definitions	Word not used in BMS RCS body. Polyculture not used in body of 2006 RCS Effective supervision was used in 2006 RCS but changes to relay section term not needed now. Harvest area term not used in new draft where historically used (twice) clarified to growing area. Harvestable day concept made clear in body of notice. Suitable material not used in body of 2006 RCS
4 (1) definitions	1.1 (1)	New definitions.	Saves repeating definition in several places. Deleted prohibited as a "growing area" classification and made "zones" concept. To address issue of scallop areas so can legally open and close the areas.
4 (1) definitions	1.1 (1)	New definitions	Allow use of abbreviation
4 (1) definitions	1.1 (1)	Editorial of definition Adverse pollution condition APC strategy Certified sampler Closed Harvest criteria Non-point source Open	To read better



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		Secondary sample stationSRS strategy	
4 (1) definitions	1.1 (1)	Editorial of definition Container Lot Regional Shellfish Specialist Shellfish Laboratory Toxic substance Transportation unit Remote approved Approved Conditionally approved Conditionally restricted Restricted	To improve clarity BMS container improved definition Clarity wrt timeframe so maximum 24 hour period for a lot Changed RSS to Shellfish Specialist Changed to Recognised Laboratory in line with Animal Products Labs Notice 2006 RCS definition had DG determination ability for toxic substances but this was not legislatively supported. Clarity around BMS container and transportation unit All classifications reworded to refer to section in notice where it explains what the classification means.
4 (1) definitions spat	1.1 (1)	Added geoduck 30mm to spat definition.	Added geoduck for species that may be grown in hatchery for aquaculture. 30mm arrived at after discussions with Cawthron because "cocktail" size for trade could be 40-50mm if aquaculture grown. Possibly take around 6 months to get from 30mm to 40mm.



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7(3)	2.11 (2) (a) iv)	Added clause. (2)The annual review involves the following: a) a field observation and evaluation of the pollution sources identified in the sanitary survey and their performance standards, if any. This may include: i) a drive through survey; ii) observations made during sampling; iii) information from other sources; or iv) in the case of sources implicated in illness outbreaks, a thorough re-evaluation;	A result of a recommendation from the report "Improving the Management of Risk of Human Enteric Viruses in Shellfish at Harvest" A review of the management of sources of contamination that were implicated in previous NoV outbreaks in each impacted growing area to ensure that appropriate management of risk is on-going – microbial source tracking techniques could be useful in confirming the absence of human contamination close to the source. And A review designed to identify cost-effective ways of ensuring that the assessment of the risk of virus contamination in growing areas stays current.
7 (3) (h)	2.11 (2) g)	Add words "emergency closures" g) reporting on all relevant action taken by the APO in the past year, including any: i) adjustment of harvest criteria; ii) reclassification; iii) additional water or BMS sampling; iv) hydrographic studies; v) emergency closures; or vi) other work done by the APO to update the information in the sanitary survey for the area.	Clarify standards to re-confirm requirements elsewhere in the RCS notice. BMS RCS 2006 Clause 21 (8) requires emergency closures to be reported on and included in annual review report.
7 (3) (g)	2.11 (3) b)	Add extra words. b) the annual reviews of the marine biotoxin management plan, the harvest control plan, and the conditional area management plan (if any); and	Clarify standards to re-confirm requirements elsewhere in the RCS notice for marine biotoxin and harvest control reporting.
7 (3) (d)	2.11 (2) d)	Add words d) reviewing the sampling activity, including laboratory notifications given to the APO under 15.3 (2) (c) and any resulting actions taken under 15.3 (4);	Clarify expectation regarding sampling activity review and reporting.



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7 (4)	2.11 (4)	Amended. (4) The annual review must show a completion date.	Reports completed and filed electronically now. No need to sign document. APO by placing on central file means accepted/ signed off. When this was written the central file was a hardcopy. One copy needs to be placed into MPI electronic central file. Retained date of completion requirement.
7(5)	2.4 (2)	Limited DG extension to 1 year at a time. (2) A sanitary survey of a growing area must be conducted by an APO at least every 12 years following the initial sanitary survey, unless the Director-General grants an extension (which may be of no more than 1 year).	Proposed time limit because current clause had no limit. Does not stop reapplying for another year. Reworded to read better.
12(4) 12(5) 13 (3) 14(3) 16(3)	Sch 1 (3) 2.6 (3) 2.7 (3) 2.8 (3)	Amended "the last 15 samples taken" and "the last 3 years" For a growing area managed under the APC strategy, a minimum of 15 of the samples in sub-clause schedule 1 (2), for water and BMS respectively, must be taken under adverse pollution conditions. Growing areas under the APC strategy must use at least the most recent 15 samples covering at least the last 3 years of sampling from each primary sample station to calculate the bacteriological standard described in clause	To align with USA and make less restrictive. Also the notice requires statistics to be undertaken on an n=15 some remote approved areas will not have n=15 over 3 years.
18 (3)	8.2.4 (1)	Change APC monthly sampling to 5 per annum provided no point pollution sources. 8.2.4 Conditional areas (1) If the conditional area management plan for a conditional growing area is based on the effects of non-point sources of pollution (such as including rainfall events, storm water runoff, and seasonal variations), samples must be taken from each primary sample station when the growing area is in the open status at a frequency of: a) 5 water and 5 BMS samples using the APC strategy; or b) 6 water and 6 BMS samples using the SRS strategy.	Less cost for industry going from monthly to 5 per year sampling. Aligns with USA NSSP standards. Allowed for conditionally approved areas that do not have point pollution sources.
Part 3	2.10	Creation of selective areas to deal with scallop growing areas.	Scallops posed problems for MPI when it came to legally closing areas whereby they are currently not classified areas. They need a marine biotoxin management plan and need to be opened and closed. We have introduced



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			"selective" areas. We are open to suggestions for another word for this. This allows scallop areas to legally opened and closed. These area will be classified, listed (should have been historically) and require a "sanitary survey" but only consider limited elements for a sanitary survey as per schedule 1. MPI propose a simple sanitary report for each scallop area which effectively will be the current marine biotoxin plan. The marine biotoxin management plan needs to cover all the details we would require, eg maps, boundaries, names of area, species, contact details, hydrographics and sampling sites. An annual review is required which will be the same as the current annual review required now for the marine biotoxin management plan. Selected areas exempt from bacteriological monitoring.
28	4.5	Changes to consultation process for management plans. Key change now reads: (1) During the preparation of a conditional area management plan, an APO must consult with: a) growers and harvesters, or representatives of growers or harvesters, who operate or are likely to operate in the growing area; and b) the individuals responsible for the operation of any wastewater treatment plants that impact the area; and c) any other relevant agencies that may be involved in anything that affects or monitors water or BMS quality in the growing area. (2) Consultation must include: a) an opportunity to comment in writing on a draft version of the plan; and b) an opportunity, if requested, to meet and discuss the plan with the APO and other relevant parties; and c) consideration by the APO of all comments and discussion; and d) notification to relevant parties of the final version of the plan at least a week before it comes into effect. (3) An APO may, if he or she considers it would be useful, consult during any review of a conditional area management plan.	Key clause deleted is (c) Failure of any one party to agree on the conditions may constitute sufficient justification for an animal product officer to place the growing area into the closed status This clause was onerous and technically if for example a waste water treatment plant operator disagreed this could stop an area having a management plan and therefore be open for harvest. The APO also with clause 3 can make minor editorials without need to get agreement.
29	Part 3	Creation of Prohibited zones cf classification as prohibited.	Regulations only allow an area to be open or closed, does not allow parts of areas to be closed. Posing problems when MPI closes part of an area for marine biotoxins or other events eg bacto or chemical spillage. Hence we had to



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			consider making part areas a temporarily prohibited zone. The APO can make part of an area a temporary prohibited zone leaving the rest open.
			Dropped Prohibited classification. Although it was exempt from doing a sanitary survey it technical needed annual reports etc.
			We now have an unclassified areas section. (2.3). Then introduce prohibited zones where we talked about "prohibited areas" historically.
29(1) 29(5)	3.2 (2)	New clause (2) A shellfish specialist may: a) authorise harvest from a prohibited zone for the purpose of processing or relay; and b) impose conditions on any harvest.	Allow industry to harvest non-spat BMS for on growing as long as shellfish specialist finds it acceptable. Place conditions eg 6 months on growing, toxic substance assessment, basic shoreline survey assessment, but not require a full sanitary at large cost to industry. Allows flexibility during exceptional events eg the oyster industry impacted by herpes virus wanted to collect wild large shellfish and on grow them.
			Other examples where clause can be used: a) a part area made a temporary prohibited zone due to a marine biotoxin event allows approval to relay out of the area under strict relay conditions (eg long time, end point testing); or b) area (or part of area) made prohibited due to ongoing virus issues therefore allow one off harvest for heat processing (eg canning/pouching).
29(4) (d) (i)	3.5 (3) a)	the volume, flow rate, location of discharge, performance of the wastewater treatment plant and the bacteriological microbiological quality of the effluent; and	To future proof to allow for viruses and protozoan (parasite) quality of effluent not just bacteriological
30 (2) (a)(vi)	7.1 (3) a)	Change wording from "seasonal" to "inactivity". (3) An APO may close an area if: a) growers in the area ask for the area to be closed due to inactivity; or	Make clear industry may request closure for longer than season eg greater than 1 year. This terminology also follows USA NSSP standards – allows flexibility.
33 (3)	Deleted	(3) The animal product officer may amend or revoke a relay permit when relay operating procedures are not complied with.	Not needed, regulations (BMS RCS Regs 47) allows APO revocation of a relay permit if holder does not comply with the relevant specifications or conditions attached to the permit.



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33 (2) 33 (9) 33 (12)	9.1 (4) b)	Changed from annually issuing a relay permit to annual verification of the relay permit only. That is, relay permits stay in place until revoked. Also requirement to "effectively supervise" current clause 33 (12) deleted. 9.1 (4) The permit must include conditions: b) requiring the relay operating procedures to be reviewed annually by an APO.	For relaying MPI cannot put a condition on relay permit to allow it last only a year because conditions in BMS RCS regs 46 are "for purpose of ensuring the suitability of BMS for intended use". Limiting permit to a year is not justified. The notice already required an annual verification of the relay procedures (current clause 33 (9)). The current notice required an APO to "supervise" relays. It was never clear the extent of "supervision" that was required. Better to have annual verification to ensure compliance. This will clarify that and take away the supervision requirement.
32 (6)		Deleted whole clause (6) That part of the growing area containing relayed BMS and an area an acceptable distance from the relayed BMS must be placed in the closed status by an animal product officer until the period of relay is completed in accordance with the conditions in the relay permit. But if needed distance or closure conditions can be covered by proposed clause 9.2 (1) q) which was also in current notice. q) any other requirements an APO considers necessary for local conditions.	Areas to which relays occur are usually small and defined within the larger area nearly always on an aquaculture farm. Management by closing small parts of areas is impractical. This concept from USA where they relay by depositing large volumes of shellfish from one wild source to another wild growing area is understandable to prevent comingling but not practical for NZ. But if needed whole areas can be closed using the relay permit conditions. Allows better flexibility for industry and APO.
33 (7) (j)	9.2 (1) j)	j) a map of the relay growing area showing the actual relay area and the proposed closure area around the relayed BMS;	Reason as above for 32 (6) deletion.
35 (1) (a)	9.5 (2) a)	address environmental and spatial and vertical factors which may affect the cleansing of the BMS; and	Editorial spatial covers "vertical"
45 (2)	5.4	Changes to consultation process for management plans.	See comments above (re C28) for conditional management plan consultation process.
Table 6A	Table 2	Add trigger for Karenia brevisculata NSP 10,000	Karenia brevisculata: Addition of a trigger breach level for K. brevisculata (NSP) at 10 000c/L. This recommendation follows a study by Feng Shi (Shi, F., McNabb, P., Rhodes, L., Holland, P., Webb, S., Adamson, J. et al. (2012). The toxic effects of three dinoflagellate species from the genus Karenia on invertebrate larvae and finfish. New Zealand Journal of Marine and Freshwater Research, Publication online. DOI:10.1080/00288330.2011.616210



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Table 6A	Table 2	Delete YTX triggers Gonyaulax cf spinifera YTX 100 Protoceratium reticulatum YTX 500	MPI decision not to regulate YTX
Table 6A	Table 2	Add trigger level for Azadinium sp. AZA 30,000	Currently no phytoplankton trigger level set yet a regulatory level set for flesh testing. Cawthron recommended to MPI this conservative level be set. A DG letter has been sent to Cawthron to use this level in the interim while standard gets changed.
Table 6A	Table 2	Add trigger level for Alexandrium pacificum . PSP 100	Name change of Alexandrium catenella to Alexandrium pacificum base don Cawthron research.
Table 6B	Table 3	Change units from "20 Mouse Units (MU) per 100g " To "0.8 mg brevetoxin-2 equivalents/kg".	The units for Neurotoxic Shellfish Poison (NSP) need to be updated to reflect the guidelines set by the USFDA Natural Toxins Chapter 6 also ISSC proposal accepted 2012 09-101. According to this, the units required for chemical based methods are 0.8 mg/kg brevetoxin-2 equivalents. The current units are mouse bioassay levels and the mouse bioassay is not used in NZ now.
Table 6B	Table 3	Delete Yessotoxin Shellfish Poison. Yessotoxin Shellfish Poison (YSP) The maximum level of YTX, 45 OH YTX, homo YTX and 45 OH homoYTX must be 1 mg of YTX equivalents/kg	MPI decision not to regulate YTX
43	deleted	43 Notification of wet storage operations (1) Persons involved in the wet storage of BMS must notify an animal product officer in writing within 24 hours of the wet storage operation commencing of : (a) the source growing area and the wet storage growing area; and (b) the species and quantity of BMS being wet stored; and (c) a standard operating procedure including the documentation, harvesting transport and identification of BMS during the wet storage operation.	MPI believe no need for this requirement. The outcome needed is traceability and this is still will be required (proposed clause 10.3)
45 (9)	deleted	(9) For marine biotoxins for which cell counts of toxigenic producing phytoplankton or maximum permissible levels in BMS have not been established in this Notice, the Director General may determine the closure criteria.	If needed can use emergency closure clause in propose notice 7.2.
45 (11)	deleted	(11) The animal product officer may exempt specific species of BMS from the marine biotoxin closure when data effectively demonstrates that the biotoxin has not been	APO will need data to make a decision on species. If one species showing no toxin uptake then the area (zone) which they are in can be left open and make the species in an area (zone) temporary prohibited as per proposed part 3 and section 7.5. Legally an area/zone must be open or closed. Within an area we



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		detected in the species prior to the closure at increasing levels below the maximum level.	cannot have open for one species and not the other. If species are grown together then that area must be closed should one species be above the regulatory level. Typically though in a growing areas oysters and mussels are grown on separate marine farms and therefore, for example, mussel farms, if become toxic can become temporary prohibited (closed) zones and the oyster farms still stay open.
46 (4) (e)	5.7 (2)	Addition of words. (2) The change of sampling frequency and spatial coverage from one level to another must be triggered by specific observations or combinations of observations already identified as triggering factors or triggering scenarios.	Current clause not clear about what the "frequency" meant. Clauses 45 (4) (g) and 45 (12) gave guidance as to what is required.
49 (2)	14.3 (1)	Reworded plus allow "under supervision" (1) Samplers must be: a) trained and audited by or under the supervision of an APO; and b) certified by an APO.	Allow flexibility, the training and auditing could be done by technical experts who assist the APO in growing areas. Eg DHB HPO sampling officer training.
49 (2)	14.3 (2)	Words added regarding conflict of interests. (2) A person must not be trained as a sampler unless an APO is satisfied that the person: a) has adequate educational qualifications and training in scientific principles; and b) is trustworthy, reliable and self-motivated; and c) has declared whether the person has any actual or potential conflicts of interest and, if any, these are acceptable to an APO.	Making clear that the APO acknowledges if any conflict of interests are acceptable and therefore the APO will need to keep records to show this.
52 (1) g)	deleted	(1) The sampler must ensure that a sample submission form accompanies each sample submitted to a laboratory and that it contains — (g) any other information the Director-General may require.	Unnecessary.
52 (2)	14.7 (2)	Sample labels. Change "acceptable" to "allow discovery of".	Acceptable in current notice means acceptable to the regional shellfish specialist. Outcome for any sample label is discovering the listed requirements. No need for shellfish specialist approval.
56 (1)	11.1 (2)	New clause (2) The person nominated by a harvest operator to be the day-to-day manager of harvest operations must be confirmed in writing to the harvest operator.	BMS RCS Reg 23 (1) (a) (ii) requires for a "Day to Day Manager" of harvest operations. MPI wants to ensure this is in writing. Plus reg 35 (b) requires MPI to show on the harvester register the name, position, or designation of the nominated person/s.



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58 (5)	11.1 (3)	Extra words. (3) The harvest operator must ensure that all persons working on harvest vessels and vehicles are adequately trained to ensure compliance with the RCS, and keep records of that training.	Addition of requirement to keep records of training with respect to harvest vessels.
59 (2)	Deleted	An acceptable marine sanitation device, portable toilet or other acceptable sewage disposal receptacle must be provided on each harvest vessel to contain human sewage, unless exempted by the Director General.	Clause not needed. Outcome required clear in 11.3 (2) (2) A marine sanitation device, portable toilet or other sewage disposal receptacle must: a) be provided in each harvest vessel to contain human sewage; and b) be constructed of impervious, cleanable material; and c) have a tight-fitting lid; and d) be secured while on board and located to prevent contamination of BMS by spillage or leakage.
61 (8)	11.8 (4)	New clause. Allowing electronic harvest declarations	Electronic harvest declarations brought in modelled on the Animal Products Notice: Specifications for Products Intended for Human Consumption - ASD's
Part 10	Part 17	Total rewrite Health of Personnel	Align with Animal Products Notice: Specifications for Products Intended for Human Consumption part 4.
Part 11	Part 12	Merged the common clauses for depots and sorting sheds and separated out the differences	Editorial.
67 (1) (a)	12.2 (2) c) ii)	ii) is used only for washing, grading, or chilling BMS; and	Washing was allowed in sorting shed but not depot. Overlooked in original BMS RCS.
69 (4)	13.1 (4)	Change from annual verification of every transportation unit to annual verification of transport operator.	Less onerous on transport operator and APO to do every unit every year. Transport operator will need to have better records to enable verification.
74	13.1 (3)	Stipulate all records required.	To allow change to annual verification of transport operator and not every unit every year.
Part 12	13.5	New clause for Couriers	All provision for couriering BMS to Primary Processer subject to controls.
72 (8)		(8) Determination of the BMS temperature and the taking of any samples must be carried out in such a manner that contamination of the BMS is minimised.	Deleted clause. Common sense requirement. It is BMS RCS Reg which requires: 10 Minimisation of contamination or deterioration. All persons engaged in the harvesting of BMS must ensure that the harvesting and related activities, including relaying, washing, and refrigeration, are carried out in a manner that minimises contamination or deterioration of the BMS.



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76 (8)	7.2 (2)	New clause (2) If an area is closed because an investigation under clause 8.6 confirms that pathogens in the area (other than naturally occurring) are responsible for an outbreak of illness, an APO must: c) implement an ongoing evaluation process for any implicated pollution sources.	A result of a recommendation from the report "Improving the Management of Risk of Human Enteric Viruses in Shellfish at Harvest" A review of the management of sources of contamination that were implicated in previous NoV outbreaks in each impacted growing area to ensure that appropriate management of risk is on-going – microbial source tracking techniques could be useful in confirming the absence of human contamination close to the source. And A review designed to identify cost-effective ways of ensuring that the
77 & 80	8.8	Merged 8.8 Investigation where human pathogens or chemical contaminants present	assessment of the risk of virus contamination in growing areas stays current. Commonality in both old sections so merged as one section.
79	deleted	Risk management and tolerance section.	Clause not needed. Material will be kept as guidance.
Part 14	Schedule 2	Moved marina calculations	Marine calculations pary of sanitary survey process. Sits best in schedules.
Part 15	Part 15	Several clauses deleted 85 (1) (b) (d) and (e) 88 (1) to (6) 89 (1) 92(1) and (2) 93 (1) to (6)	As a result of the Animal Products Notice: Specifications for Laboratories.
86 (1) (d)	15.3(1) g)	Reworded g) that the sample was received: i) within 24 hours after sample collection; or ii) if delivery was delayed, within 48 after sample collection, but only if the sample is determined to be still suitable for analysis by the laboratory;	Make it clear target to have at lab within 24 hours or at least 48 hours
86 (2)	15.3 (4)	added record requirement. 4) APOs must keep records of action taken as a result of reported laboratory non-compliances.	Requiring APO to record action taken with report lab non-compliances. These are required for the annual review.
91 (5)	15.8 (6)	(6) If any of the following results are obtained, they must be reported verbally (or by a method acceptable to a shellfish specialist) by	Allow other methods e.g. texting which is currently being trialled.



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		the laboratory to an APO responsible for the relevant growing area (or a nominated representative) within 1 hour after confirmation of the result, and be confirmed in writing within 24 hours:	
Schedule 1	Schedule 1	Reworked first schedule. Included shoreline section out of body of standard. Places sanitary survey requirements in a table.	Make more sense and help guide sanitary survey report writing.
Schedule 2	deleted	Interpretation of the 10% Factor	Guide information that can be provided elsewhere.
Schedule 3		Amended/ reworded. Deleted guidance material Clause 3 "Background" Clause 5 Application of guideline.	Background and worked examples not needed in notice can be maintained as guidance material elsewhere.
Schedule 4	Schedule 4	Table S4A: Time allowed from harvest to temperature control Level 1 \leq 18°C $=$ 36 Hours Level 2 $=$ 19°C $=$ 27°C $=$ 24 Hours Level 3 $=$ 27°C $=$ 20 Hours Level 1 $<$ 10°C $=$ 36 Hours Level 2 $=$ 10°C $=$ 15°C $=$ 24 Hours Level 3 $=$ 15°C $=$ 27°C $=$ 18 hours Level 4 $=$ 27°C $=$ 12 Hours	Align table with USA Model Ordinance time temperature regime but importantly to improve time temperature controls of shellfish to mitigate <i>Vibrio</i> risks.
Schedule 4 Table 4b and 4C	Schedule 4 S4B S4C	Put latest figures in S4B and rationalised table S4C format	Updated tables. Using NIWA data available online and updated table plus rationalised sites used. Changed S4C table significantly because previously had growing area numbers listed which meant to keep up to date when new areas come on or areas come off is an administrative issue not for notice.