Proposal for Consideration at the		Growing Area
2011 Biennial Meeting		Administrative
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Submitter:		
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Proposal Subject:	Re-opening Conditional Areas using Male-specific Coliphage after WTP Malfunction	
Specific NSSP	NSSP 2009 Section II Model Ordinance Chapter IV Shellstock Growing Areas @ .03	
Guide Reference:	Growing Area Classification A. (5) (c) (ii)	
Text of Proposal/	(ii) For emergency closures (not applicable for conditional closures) of harvest areas caused	
Requested Action	by the occurrence of raw untreated sewage or <u>partially treated sewage</u> discharged from a	
	large community sewage collection system or wastewater treatment plant, the analytical	
	sample results shall not exceed background levels or a level of 50 male-specific coliphage	
	per 100 grams from shellfish samples collected no sooner than 7 days after contamination	
	has ceased and from representative locations in each growing area potentially impacted; or	
Public Health	Male-specific Colinhage (MSC) is an RNA virus of E coli present in high numbers in raw	
Significance	sewage (on the order of 10^5 PFU/100gm) MSC is similarly resistant to chlorine	
Significance.	disinfection as are norovirus and henatitis A viruses which are the viral nathogens of	
	primary concern in sewage. MSC is a good surrogate or marker for these enteric viruses.	
	Raw or partially treated sewage accidentally discharged into a growing area by sewage by-	
	pass from pump station failures, broken sewage lines, or malfunctions at the wastewater	
	treatment facilities represent a serious public health risk and require emergency closure of	
	adjacent conditional growing areas. These closures are typically 21 days after the	
	wastewater treatment system returns to normal operation. Recent work has shown that	
	persistence of viruses in the growing waters is much lower in the summer months than in	
	the winter months. Likewise, bio-accumulation rates and retention of enteric viruses in	
	molluscan shellfish is much lower in the summer months than the winter months. MSC can	
	be a useful tool for state shellfish programs to mitigate the negative effect of prolonged conditional closures due to wastewater treatment system failures. This approach is most appropriate in the late-spring and summer months to shorten these closures from 21 to 7 days.	
Cost Information	The Male-specific Coliphage (MSC) Method is an inexpensive double-agar pour plate	
(if available):	method that can be run in any state-certified microbiological laboratory. A refrigerated	
	centrifuge capable of 9,000G is required which costs \$10K to \$12K (USD). Re-opening	
	after 7 days using MSC method is optional for s	tate shellfish control agencies.