Proposal No. 2 7 - 1 2 2

Proposal for Task Force Consideration at the ISSC 2027 Biennial Meeting *(Tab to go to next field)*	1. a. ☒ Growing Area b. ☐ Harvesting/Handling/Distribution c. ☐ Administrative
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9. Proposal Subject	WWTP minimum dilution zone
10. Specific NSSP Guide Reference	Section II Model Ordinance Chapter IV @.03 E.
11. Text of Proposal/ Requested Action	Chapter IV @.03 E. Prohibited Classification. (1) Exception. The prohibited classification is not required for harvest waters within or adjacent to marinas. The Authority, however, may use the prohibited classification for these waters. (2) General. The Authority shall: (a) Not permit the harvest of shellstock from any area classified as prohibited, except for the gathering of seed or nursery culture for aquaculture or resource enhancement or the depletion of the areas classified as prohibited; and (b) Ensure that shellstock removed from any growing area classified as prohibited is effectively excluded from human consumption unless it complies with the criteria in NSSP Model Ordinance Chapter VI. Shellfish Aquaculture @.02 Seed Shellstock. (3) Sanitary Survey. A growing area shall be classified as prohibited if: (a) No current sanitary survey exists; (b) A sanitary survey determines: (i) The growing area is adjacent to a sewage treatment plant outfall or other point source outfall with public health significance; (ii) Pollution sources may unpredictably contaminate the growing area; (iii) The growing area is contaminated with fecal waste so that the shellfish may be vectors for disease microorganisms; (iv) The concentration of biotoxin is sufficient to cause a public health risk as identified in Section @ .04. or (v) The area is contaminated with poisonous or deleterious substances causing the shellfish to be adulterated. (4) Risk Assessment. A growing area shall be classified as prohibited if a risk assessment performed in accordance with Chapter II. Risk Assessment and Risk Management indicates the shellstock are not safe for human consumption. (5) Wastewater Discharges.

(a) An area classified as prohibited shall be established adjacent to each sewage treatment plant outfall or any other point source outfall of public health significance.
(b) The determination of the size of the area to be classified as prohibited adjacent to each outfall shall include the following minimum criteria:

(i) The volume flow rate~~,~~ location of discharge~~, performance of the wastewater treatment plant and the microbiological quality of the effluent. The Authority may utilize MSC waste water sample data in the determination of the performance of the sewage treatment plant~~;

(ii) The decay rate of the contaminants of public health significance in the wastewater discharged;

(iii) The wastewater's ~~dispersion and~~ dilution, ~~and the time of waste transport to the area where shellstock may be harvested; and~~ performance of the wastewater treatment plant, and the microbiological quality of the effluent prior to disinfection:

a. If wastewater samples are not collected from the WWTP to evaluate the MSC levels and microbiological quality of the effluent to establish the size of a prohibited area around a WWTP outfall, the following minimum dilutions for the boundary line between prohibited and other possible classifications, shall be based on an assumed worst-case fecal coliform value of 1.4×10^6 FC/100 ml:

(1) Prohibited to Approved: Minimum 100,000:1 dilution that would be equivalent to an MPN of 14 FC/100 ml.

(2) Prohibited to Conditionally Approved: Minimum 1,000:1 dilution.

(3) Prohibited to Restricted or Conditionally Restricted (For depuration only**):** Minimum 16,000:1 dilution that would be equivalent to an MPN of 88 FC/100 ml.

(4) Prohibited to Restricted or Conditionally Restricted (For relay only): Minimum 400:1 dilution. Based on WWTP performance standards.

b. If MSC samples collected from the WWTP to evaluate the microbiological quality of effluent are used to establish the size of a prohibited area around a WWTP outfall, the following minimum requirements shall be met:

	(1) MSC samples are collected from the influent and pre- and post-disinfection effluent from each WWTP to be evaluated: (i) MSC samples are collected to establish effluent quality and effectiveness of disinfection under normal operating conditions for the WWTP; and (ii) MSC samples are collected to establish effluent quality and effectiveness of disinfection under adverse conditions for the WWTP; and (2) The sample collection is conducted to account for environmental and high use period factors such as seasonality, rainfall, and high flows; and (3) The effluent quality and environmental data shall be used to establish the size of the prohibited area. For a prohibited area adjacent to an approved area, worst-case pre-disinfection levels and time of travel must be considered. (4) If (1) through (3) have been completed and the effluent quality and environmental data justifies a reduced prohibited area, the minimum size of the prohibited area shall be based on a minimum dilution of 400:1 using a hydrographic dye study or hydrodynamic dispersion modeling to account for the risk of enteric viruses. Additional sampling shall be required to account for the risk for poisonous or deleterious substances of public health concern present in the wastewater effluent. (iv) The wastewater's dispersion. (v) The wastewater effluent time of travel to the area where shellstock may be harvested; and (~~i~~vi) The location of the shellfish resources, classification of adjacent waters and identifiable landmarks or boundaries.
12. Public Health	In sizing prohibited areas around a WWTP outfall, broad minimum criteria have been established in the Model Ordinance. Guidance is available that provides

Significance	additional information to assist in meeting the Model Ordinance requirements if microbiological quality samples are not collected. Authorities also have the option to collect microbiological samples to assess the WWTP effluent and justify an alternate prohibited area sizing strategy. Some advanced wastewater treatment plants have become very efficient at treating for and removing fecal coliforms from wastewater effluent. Depending on the disinfection process, fecal coliform may not be the most appropriate indicator of viruses and poisonous or deleterious contaminants of concern as you get closer to the WWTP effluent, creating a false sense of human health protection. This proposal is meant to establish more defined guidelines as well as, a minimum dilution zone requirement around all wastewater treatment plant outfall pipes to ensure protection from viral and other contaminants (poisonous or deleterious substances) that fecal coliforms may not represent. In addition, Section II. Chapter XV. .03 K. already sets precedence for a minimum prohibited area for depuration: "K. Supplemental Requirements for Depuration using MSC Viral Controls for Shellstock Harvested from Conditionally Restricted Growing Areas Impacted by Wastewater System Discharge (WWSD) outside of a 300:1 dilution or the EPA Toxic Dilution Zone (whichever is greater) and within an area determined to be impacted by wastewater treatment system discharge. These requirements would allow harvesting in areas that would otherwise be classified as prohibited due to viral pollution concerns. The harvest area that could be considered would include the area between 300:1 dilution or the EPA Toxic Dilution Zone (whichever is greater) and the established boundary for depuration (Chapter IV @.02 G.)."
13. Cost Information	No cost.
14. Changes Needed to Guidance (if proposed change is adopted)	TBD