ISSC 2014
MSC Informational Meeting
Committee Report

Committee Name : Growing Area Classification
Chairperson: Patti Fowler
Date of Meeting: August 18 & 19, 2014
Recorder: Cathy Mantooth **Approved By:**

Committee Members Present:

☐Patti Fowler (Chairperson)
☒Michael Bott
☒Kathy Brohawn
☒Bill Burkhardt
☒Kevin Calci
☒Greg Dale
☒Jerrod Davis
☒Bruce Friedman
☐Tom Gallivan
☒Scott Gordon
☒Tom Howell
☒Shannon Jenkins
☒Kohl Kanwit
☒Jeff Kennedy
☒Alex Manderson
☒Joe Migliore
☒Bob Rheault
☒Chris Roberts
☐George Scanlan
☐Jim Sim
☒Chip Simmons
☒Keith Skiles
☐Diani Taylor
☐Brian Yarmoosh
☐Julie Anbarchian (FDA Delegate)
☒Joel Hansel (EPA Delegate)
☐Angela Ruple (NOAA Delegate)

Charges

Charge 1: Proposal 11-101: Re-Opening Conditional Areas Using Male-Specific Coliphage after WTP Malfunction

Charge 2: Proposal 11-102: Using Male-specific Coliphage as a Tool to Refine Determinations of the Size of the Areas to be Classified as Prohibited Adjacent to Each Outfall

Charge 3: Proposal 11-103: Alternative Male-specific Coliphage Meat Standard for Restricted Classification of Growing Areas Impacted by wastewater treatment plant outfall

Background:

To address proposals 11-101, 11-102, and 11-103, the 2013 ISSC Voting Delegates recommended that a workgroup be formed to look at the current MSC data and the science behind its potential use and applicability for use in the NSSP. The workgroup along with the ISSC Executive Office organized a meeting of MSC experts, academia, and scientists to discuss the current information and science on MSC. The Voting Delegates further directed that the information from this meeting be shared with the Growing Area Classification Committee.

Meeting Format:

The MSC meeting was formatted to allow a MSC Expert panel to share current scientific information, current research and results from relative field studies. The format was used to allow members of the ISSC Growing Area Classification Committee the opportunity to learn and understand more about the viral indicator and its potential benefits for use in both reopening of shellfish waters following emergency closures and classification of harvest waters adjacent to waste treatment plants.

Prior to the MSC Informational Meeting, the ISSC solicited MSC related questions from the membership. There were 64 questions submitted. The steering committee reviewed and selected 37 questions for the expert panelists to address. Each question was assigned to a panelist to answer. Other panelists commented on the response of the assigned panelist.

Members of the Growing Area Classification Committee and attendees were given an opportunity to ask questions following the presentations of MSC related field study results.

Expert Panelist Consensus:

The panelists were then asked for their opinion regarding the use of MSC in the NSSP. The consensus of the expert panelists is listed below.

A. MSC should not be used to replace Fecal Coliform as an indicator for shellfish growing area classification.

B. MSC should continue to be used in conjunction with sanitary surveys to assess impacts of raw untreated sewage discharged from waste treatment plant failures.

C. MSC testing could be used in re-opening conditional growing areas adjacent to waste treatment plant outfall after waste treatment plant bypass or malfunction following the required 7 days closure.

D. MSC could be used to evaluate impact of rainfall events for combined sewer systems and hydraulically-overburdened sanitary systems. Based on the efficiency of the plant, it could be used for both water quality and shellfish testing.

E. MSC sampling data comparing influent and effluent quality could be used under various flow conditions to evaluate the waste treatment plants for determining the size of prohibited, restricted, and conditionally approved area adjacent to waste

treatment plant outfalls. This could include determining the size of harvest areas for relaying and depuration.

F. MSC sampling data comparing influent and effluent quality could be used for determining waste treatment plant performance with regards to viruses as critical input for dilution models and hydraulic modeling.

G. MSC sampling data could be used as classification and assessment tool to determine viral persistence in shellfish meats harvested from growing areas adjacent to waste treatment plant outfall for determining seasonal, spatial, and meteorological variation in shellfish growing area adjacent to waste treatment plant outfalls.

H. MSC sampling data could be used as classification and assessment tool for verifying viral persistence in shellfish meats harvested from growing areas adjacent to waste treatment plant outfall for ground truthing studies and dilution models

I. MSC could be used in source water tracking for shoreline survey problems associated with waste treatment plant collection systems and pump stations.

J. MSC, in conjunction with fecal coliform, could be used as an optional indicator for sampling to determine effectiveness studies and process controls for relaying and container relaying.

K. MSC, in conjunction with fecal coliform, could be used as an optional Indicator for sampling to determine effectiveness studies and process controls for depuration plants.

Committee Recommendations:

The Growing Area Classification Committee was requested to respond to questions which were based on the consensus of the expert panelist. The committee deliberated the questions which are listed below. Committee action on each of the questions is also listed below.

A. Should MSC be considered as a replacement for Fecal Coliform as a primary microbiological indicator for shellfish growing area classification?

Committee Action

The committee unanimously agreed that MSC is not a candidate indicator for replacing fecal coliform. MSC can provide useful information for

assessing viral contamination from large waste water treatment systems, but is not adequate for assessing other types of microbial pollution.

B. Should MSC continue be used in the NSSP to assess impacts of raw untreated sewage discharged from a large community sewage collection system or wastewater treatment plant failures?

Committee Action

The Committee agreed that MSC should continue to be used as an assessment tool in the NSSP for evaluating the impacts of raw untreated sewage discharged from a large community sewage collection system or wastewater treatment plant failures.

C. Should MSC testing be used for re-opening conditional growing areas adjacent to waste treatment plant outfall after waste treatment plant bypass or malfunction following the required seven (7) day closure?

Committee Action

The Committee supported the concept of using of MSC in the NSSP and recommends a workgroup be formed to draft proposal language for Committee review and submission for discussion at the 2015 Biennial Meeting.

D. Should MSC be used to evaluate the impact of rainfall events on the effluent quality of combined sewer systems?

Committee Action

The Committee recommended adding this item to the work group charge (see C. recommendation above).

E. Should MSC sampling data comparing influent and effluent quality under various flow conditions be used to evaluate the waste treatment plants for determining the size of prohibited, restricted, and conditionally approved area adjacent to waste treatment plant outfalls? This would include determining the size of harvest areas for relaying and depuration.

Committee Action

The Committee supported the concept of using MSC sampling data for comparing influent and effluent quality under various flow conditions as an optional assessment tool for determining viral wastewater treatment plant performance. The Committee recognizes that this sampling data could provide useful information for determining the size of prohibited, restricted, and conditionally approved area adjacent to waste treatment plant outfalls. This would include determining the size of harvest areas for relay and depuration harvesting.

The Committee recommended that a workgroup be formed to draft proposal language for Committee review and submission for discussion at the 2015 Biennial Meeting.

F. Should MSC sampling data comparing influent and effluent quality be used for determining waste treatment plant performance with regards to viruses as critical input for dilution models and hydraulic modeling?

Committee Action

The Committee supported the concept of using MSC sampling data comparing influent and effluent quality as an optional assessment tool for determining viral wastewater treatment plant performance for input into dilution models and hydraulic modeling.

The Committee recommended that a workgroup be formed to draft proposal language for Committee review and submission for discussion at the 2015 Biennial Meeting.

G. Should MSC sampling data be used as classification and assessment tool to determine viral persistence in shellfish meats harvested from growing areas adjacent to waste treatment plant outfall for determining seasonal, spatial, and meteorological variation in shellfish growing area adjacent to waste treatment plant outfalls?

Committee Action

The Committee supported the concept of using MSC sampling data be used as classification and assessment tool for verifying viral persistence in shellfish meats harvested from growing areas adjacent to waste treatment plant outfall for ground truthing studies and dilution models.

The Committee recommended that a workgroup be formed to draft proposal language, to include the development of a sampling regime, for Committee review and submission for discussion at the 2015 Biennial Meeting.

H. Should MSC sampling data be used as classification and assessment tool for verifying viral persistence in shellfish meats harvested from growing areas adjacent to waste treatment plant outfall for ground truthing studies and dilution models?

Committee Action

The Committee supported the concept of using MSC sampling data be used as classification and assessment tool for verifying viral persistence in shellfish meats harvested from growing areas adjacent to waste treatment plant outfall for ground trothing dye studies and dilution models.

The Committee recommended that a workgroup be formed to draft proposal language, to include the development of a sampling regime, for Committee review and submission for discussion at the 2015 Biennial Meeting.

I. Should MSC be used in conjunction with shoreline surveys for source water tracking to identify pollution sources associated with waste treatment plant collection systems and pump stations?

Committee Action

No action. Rationale: The NSSP does not require source water tracking. States choosing to conduct source tracking presently have the discretion to use MSC.

J. Should MSC be used in conjunction with fecal coliform in effectiveness studies and process controls for relaying and container relaying?

Committee Action

The Committee supported the concept of these uses and recommends that a workgroup be formed to draft proposal language for Committee review and submission for discussion at the 2015 Biennial Meeting.

K. Should MSC be used in conjunction with fecal coliform in effectiveness studies and process controls for depuration plants?

Committee Action

The Committee recommends support of the concept of these uses and recommends that a workgroup be formed to draft proposal language for Committee review and submission for discussion at the 2015 Biennial Meeting.

L. **Additional Committee Action**

1. The Committee discussed the relationship of WTP size to the applicability of using MSC. The workgroup is requested to address this concern in proposal development.

2. The Committee also discussed the current status of the NSSP approved method for MSC. There was concern that for regulatory decisions the NSSP approved MSC method needs elevation above a Type IV method. The lack of an approved method for analyzing MSC in water must be addressed prior to its use for evaluating WTP effluent.

3. The Committee discussed the need to address the regulatory levels for MSC that would be most appropriate should the ISSC decide to expand the use of MSC in the NSSP.