

# NJDEP Technical Guidance Document Review Form

**Document: "FSPM Chapter 3 - Contaminants of Emerging Concern"**

*Comment Period January 23, 2024 to February 19, 2024*

**NJDEP Committee Chairperson: Crystal.Pirozek@dep.nj.gov**

Comment #	Page	Section	Subsection	COMMENTS	RESPONSE
1				General - there appears to be a fair amount of redundancy in the chapter.	Thank you for the comment.
2				CCNJ/SRIN recommend that DEP align with the use of ITRC's definition of "Contaminants of Emerging Concern (CEC)" to be consistent throughout this chapter. Per ITRC, "CEC" are defined as "substances and microorganisms including physical, chemical, biological, or radiological materials known or anticipated in the environment, that may pose newly identified risks to human health or the environment." ( <a href="https://cec-1.itrcweb.org/">https://cec-1.itrcweb.org/</a> )	changed definition to be more descriptive
3				CCNJ/SRIN recommend that DEP include their reference "PFAS Sampling Information For Water Systems Performing Sample Collection" document dated November 2021 found here: <a href="https://www.nj.gov/dep/watersupply/pdf/pfna-pfas-sampling-guidance-for-nj-water-systems.pdf">https://www.nj.gov/dep/watersupply/pdf/pfna-pfas-sampling-guidance-for-nj-water-systems.pdf</a> .	Thank you for the comment, we will reference the PFAS document in the PFAS factsheet.

4	2	3.1	NA	General comment: it would be beneficial to orient the reader to CEC's and their relation to the purpose of the document in the introduction. The first time CEC's are mentioned in relation to NJDEP guidance/procedures is in section 3.3 (aside from the general references in the 3rd intro paragraph which is not very specific). A short paragraph in the introduction linking why CEC's are of interest to the field sampling procedures manual and/or why this chapter is being included will help put these contaminants in perspective for users of the manual (and why they are reading this information in the first place; i.e. for sampling considerations, SCM development, analytical method guidance, etc).	added additional information to the intro
5	2	3	1	CCNJ/SRIN recommend that DEP include the following EPA references: <a href="https://www.epa.gov/environmental-topics/chemicals-pesticides-and-toxics-topics">https://www.epa.gov/environmental-topics/chemicals-pesticides-and-toxics-topics</a> <a href="https://www.epa.gov/pfas/pfas-resources-data-and-tools">https://www.epa.gov/pfas/pfas-resources-data-and-tools</a>	Add the toxic chemicals to Ch 3 and the PFAS link to the fact sheet.
6	2	3.2	1	Revise to read "... and are not currently regulated or need regulatory ..."	agreed to change
7	2	3	2.1.1	How does DEP define "industrial and commercial chemicals" referenced in the first sentence of this subsection? CCNJ/SRIN recommend the use of the ITRC "CEC" definition throughout this chapter to avoid any inconsistency.	added to DEP definition
8	2	3.2	1.1	The examples of CECs provided are all chemical in nature. The EPA also lists microorganisms as potential CECs. Suggest adding microorganisms to the example list to reflect that CECs may also be biological in nature.	agreed to change
9	3	3.2	2.1	Suggest moving the second paragraph under 3.2.3.1 to this section to address drinking water emerging contaminants that are known or anticipated to occur and information on how they are selected by EPA through the CCL. If this section is not relocated, suggest clarifying why there is only a focus on aquatic life.	agreed to not change bc it maps onto the drinking water quality institute process
10	3	3.2	2.1	Suggest revising the sentence to "...often because of <u>the development of more sensitive analytical techniques with lower</u> analytical chemistry detection levels). The improvement in the sensitivity of the technique, or the development of new analytical techniques, is what has lead to the lower detection levels.	agreed to change
11	3	3.2	2.2.1	First paragraph - use of USGS without defining the acronym	agreed to change
12	3	3.2	2.21	First paragraph - A comtaminant also may be 'emerging ... should be may be 'emerging'	agreed to change

13	3	3.2		The headers for sections 3.2.2.1 and 3.2.2.2 should be capitalized in a manner consistent with the other section headers	agreed to change
14	4	3.2	2.2	Grammar error Last sentence on top of page 4 should read... substitute compounds, which...	agreed to change
15	3	3	2.2	CCNJ/SRIN recommend that the third sentence of this subsection be rewritten/reordered as follows:  "Regulatory agencies, research groups, policy makers, and environmental groups strive to keep pace with this issue by <b>understanding the impacts to human health and the environment</b> , monitoring CECs, assessing their risk, and developing strategies for their management, <b>and</b> mitigation, <del>and impacts to human health and the environment.</del> "	agreed to change
16	3	3	2.2	CCNJ/SRIN recommend that the last sentence of this subsection be edited as follows:  "Collaboration between the scientific community, industry, and government agencies is important in addressing the ever-changing spectrum of CECs and their effects on <b>human health and</b> the environment."	agreed to change
17	3	3	2.2.1	This section focuses on human health and does not mention ecological receptors. CCNJ/SRIN recommend that DEP use the ITRC CEC definition throughout the chapter for consistency.	defintion modified
18	4	3	2.2.3	CCNJ/SRIN recommend that the first sentence of this subsection be edited as follows:  "Understanding the fate and transport of CECs through naturally occurring <b>and/or</b> remediation processes is critical to evaluating effects on water quality, soil, ecological receptors, and human health."	agreed to change
19	4	3	2.2.3	CCNJ/SRIN recommend that the last sentence of this subsection be edited as follows:  "Continued research is required to evaluate <b>acute and chronic</b> <del>long-term</del> effects of CECs and the degradation and/or secondary contaminants that may be generated."	agreed to change

20	4	3.2	2.3	Awkward sentence. Last sentence rewritten to...evaluate long term effects of CECs, their degradation, and/or secondary...	agreed to change
21	4	3	2.3	CCNJ/SRIN recommend that the first sentence of this subsection be rewritten as follows:  "CECs have raised concerns about potential impacts to human health and the environment due to their increasing prevalence <b>and/or advances in analytical methods, instrumentation, and data analysis, which make it possible for lower detection limits.</b> "	agreed to change
22	4	3	2.3	CCNJ/SRIN recommend adding the following to this subsection as the opposite of what is currently written can also be true:  <b>"A chemical may no longer be considered a CEC when one or more of the following criteria have been met: (1) the chemical can be analyzed using validated analytical methods, (2) the chemical's toxicity has been evaluated/identified, or (3) the chemical has regulatory screening levels."</b> ( <a href="https://cec-1.itrcweb.org/1-cec-white-paper/">https://cec-1.itrcweb.org/1-cec-white-paper/</a> )	agreed not to add.
23	4	3	2.3.1	CCNJ/SRIN recommend that the third sentence of the third paragraph of this subsection be rewritten as follows:  "Monitoring for unregulated contaminants occurs every 5 years for <b>all large</b> public water systems (PWS) with more than 10,000 service population, <b>and all small PWS serving between 3,300 and 10,000 people</b> , and if appropriations are available include smaller PWS <b>serving fewer than 3,300 people</b> as well contingent upon sufficient laboratory capacity."	added the UCMR link for clarity
24	4	3	2.3.1	CCNJ/SRIN recommend that the second to last sentence of this subsection be edited as follows to be consistent with the ITRC "CEC" definition:  <del>"Hazardous algae bloom toxin method development and analysis, PFAS, and 1,4 dioxane, perchlorate, and pesticide</del> investigations are just a few of the emerging contaminant investigations that have been or are actively being investigated."	agreed to not change
25	4	3.2	3.1	3rd paragraph - reference to safe drinkng water act should be capitalized	agreed to change

26	4	3.2	3.1	3rd paragraph3 sentence - revise to ...10,000 service population and, if appropriations are available and sufficient laboratory capacity, will include smaller PWS.	agreed to change
27	4	3.2	2.3	There are varying levels of information available on CEC fate and transport. Recommend revising the sentence "Due to limited research or currently available information, little is known about the effects of CEC fate and transport and/or degradation in the environment" to "For many CECs, little is known about fate and transport and/or degradation in the environment due to limited research or currently available information."	agreed to change
28	4	3.2	2.3	Revise to read "... evaluating potential effects on water quality, sediment, soil, ecological receptors ..."	agreed to change
29	4	3.2	3	Revise to read "... ongoing research to further understand how these ..."	agreed to change
30	4	3.2	3.1	Recommend putting the paragraph on UCMR data under a different sub-header as this collection effort is not a toxicology evaluation	agreed to not move
31	4	3.2	3.1	Consider listing other toxicology evaluations here as well (i.e. ATSDR, PPRTV)	agreed to the addition
32	4	3.2	3.1	Revise to read ... with more than 10,000 service population; if appropriations are available, monitoring can include smaller PWS (also contingent upon sufficient laboratory capacity)."	agreed to change
33	4	3	3	CCNJ/SRIN recommend that the first sentence of this subsection be edited as follows:  "A careful review of products used over the history of the <b>site</b> facility and potential release mechanisms could help identify emerging contaminants that should be considered in the development and design of the conceptual site model."	agreed to change
34	5	3	3	CCNJ/SRIN recommend adding the following to this subsection:  <b>"For PFAS compounds, background/ambient concentrations should be considered when developing the conceptual site model."</b>	agreed to add a general sentence

35	4-5	3.3		May want to note that CECs may not appear on chemical safety data sheets or active ingredient lists (this is a common issue for PFAS)	agreed to add
36	5	3.3		First line - use of PA acronym before defining it later in the sentence	agreed to change
37	5	3.4	1	First paragraph - use of QC acronym without defining the acronym	agreed to change
38	5	3	4.1	CCNJ/SRIN recommend that DEP include the following additional methodology references from EPA: <a href="https://www.epa.gov/cwa-methods/cwa-analytical-methods-contaminants-emerging-concern">https://www.epa.gov/cwa-methods/cwa-analytical-methods-contaminants-emerging-concern</a> <a href="https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas">https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas</a>	add NEMI link
39	5	3.4	3	1. Second sentence reads oddly. If analytical sensitivity is decreased lower, and potentially detrimental, levels of the CECs are missed. Higher concentrations of the CEC would be need to be present in order to be "seen."  2. Sample processing issues may lead to a falsely high or low results depending on how the interferences react with the target analyte.	changed to make clear
40	5	3.4	3	Suggest including information regarding the intended use of the of data. For example, sensitive, high quality data for the purpose of potable water analysis may need to be recollected.	agreed to not including data usability
41	6	3.5	1	Suggest spelling out the QAPP acronym, defining the purpose of the QAPP, and link to NJDEP's template.	QAPP is spelled out in section 3.4.2. It is not within the scope of this paragraph to explain what a QAPP is. There are numerous NJDEP QAPP templates depending which DEP program you would be submitting to.
42	6	3	5.2	CCNJ/SRIN recommend that the third sentence of this subsection be rewritten as follows:  "Sources of potential direct or indirect cross contamination should be identified and avoided when planning a sampling event <b>via a robust sampling and analysis plan that includes collection of field blanks and duplicate samples.</b> "	changed to make clear

43	7	3	5.5	CCNJ/SRIN recommend that DEP reference the most recently updated version of ASTM E3274-21 Standard Guide for Management of Investigation-Derived Waste Associated with PFAS before finalizing this chapter.	PFAS will be discussed in a fact sheet
44	7	3	5.5	CCNJ/SRIN recommend that DEP reference the most recently updated version of USEPA – Interim Guidance on Destroying and Disposing of Certain PFAS and PFAS-Containing Materials That Are Not Consumer Products before finalizing this chapter.	PFAS will be discussed in a fact sheet
45	7	3.5	5	grammar error 2nd sentence top page; should read...PFAS IDW may also container other contaminants, which may complicate...	agreed not to change