

Who is required to participate?

- All large systems serving 10,000 people or more will be required to participate. In addition, randomly selected small systems serving between 25 and 10,000 people will also be required to participate. The small systems analysis will be paid for by the EPA. Large systems will be responsible for all related costs. There will be three lists as indicated below:

System size (number of people served)	National sample: Assessment monitoring design	
	10 AM3 Cyanotoxins	20 Additional AM1 & 2 contaminants
<i>Small Systems</i> (25-10,000)	800 randomly selected SW or GWUDI systems	800 randomly selected SW, GWUDI and GW systems
<i>Large Systems</i> (10,001 and over)	All SW or GWUDI systems only	All SW, GWUDI and GW systems

What tests are required?

AM1 EPTDS Samples (Required for All Water Types)

- EPA 200.8 – two metals (germanium, manganese)
- EPA 525.3 – nine pesticides (alpha-hexachlorocyclohexane, chlorpyrifos, dimethipin, ethoprop, oxyfluorfen, profenofos, tebuconazole, total permethrin (cis- & trans-), tribufos)
- EPA 541 – three alcohols (1-butanol, 2-methoxyethanol, 2-propen-1-ol)
- EPA 530 – three SVOCs (butylated hydroxyanisole, o-toluidine, quinoline)

AM2 Disinfection Samples (Required for All Water Types subject to HAA5 monitoring by state agencies. If not required by your state, exempt from UCMR4 HAA and associated indicators testing.)

- EPA 552.3 or 557 – nine HAAs (BCAA, BDCAA, CDBAA, TBAA, MBAA, DBAA, DCAA, MCAA, TCAA)
- EPA 300.0 or 300.1 – Bromide
- SM5310C - TOC

AM3 Cyanotoxins (Required Only for SW/GWUDI sites)

- EPA 545– two cyanotoxins (anatoxin-a, cylindrospermopsin)
- EPA 546 – Adda ELISA (total microcystins)
- **EPA 544** – seven cyanotoxins [analyzed only when ELISA $\geq 0.3 \mu\text{g/L}$] (microcystin-LA, microcystin-LF, microcystin-LR, microcystin-LY, microcystin-RR, microcystin-YR, nodularin)

Where will the samples be taken? Will there be extra blanks or special handling requirements as required in UCMR3?

- All samples will be taken at each EPTDS except for the HAAs and the HAA indicators.

- HAAs are to be sampled at D/DBPR locations only.
 - TOC and Bromide are sampled at the source water influent for each SW treatment plant.
 - GW systems that are subject to the D/DBPRs will take TOC and bromide samples at each influent entering their treatment train.
- Sampling will be standard EPA protocol without trip or field blanks, however, the samples will require careful temperature control and careful filling to prevent preservative loss.
 - Samples not adequately preserved will need to be retaken as specific pH and chlorine levels are required for some of the methods.

What is the Sample Monitoring Frequency?

- Chemistry samples will be taken during all 12 months of the year – 4 consecutive quarters for SW and GWUDI and twice in 12 months for GW.
- Cyanotoxins for SW and GWUDI will only be sampled from March to November. Twice a month for 4 consecutive months.

Where do I go to check my sampling schedule?

- SDWARS in the EPA's CDX System located at: <https://cdx.epa.gov/cdx/Login>

What is representative sampling?

- As in previous rounds of the UCMR program, large GW systems with multiple EPTDSs can work with the EPA to receive approval for representative sampling locations rather than sampling at each EPTDS.
- Sampling plans must be submitted to the EPA within 120 days of the publication of the final rule which occurred on 12/20/2016.
- Once the plan has been approved, those sampling locations must be loaded into SDWARS by 12/31/2017.

Questions? Give us a call or send us an email. We are happy to help you learn more about UCMR4!

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