United States Environmental Protection Agency

SDWARS for PWSs (UCMR 4): Public Meeting and Webinar

Held November 8, 2017
USEPA, Office of Ground Water and Drinking Water

Office of Water (MLK 140) EPA 815-B-17-008 November 2017

SDWARS for PWSs (UCMR 4)

Public Meeting and Webinar

November 6, 2017

9:00 a.m. – 12:00 p.m. ET

1:00 – 4:00 p.m. ET

USEPA

Office of Ground Water and Drinking Water

Welcome

Brenda Parris, USEPA

Participating by Webinar

- Listen-only mode
- Click on "+" next to "Questions" in the control panel (Figure 1) to submit questions/comments
  - Type a question in the box; click send (Figure 2)
- Submit questions as soon as possible
  - Questions will be answered at the end of the presentations as time permits

Figure 1

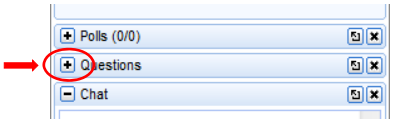
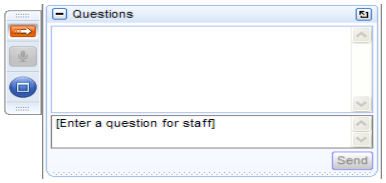


Figure 2



General Meeting Information

- Purpose
  - Describe the requirements of EPA's UCMR 4
  - Step-by-step instructions on how to use the Safe Drinking Water Accession and Review System (SDWARS) to input contacts, edit your schedule, add/edit inventory, input the additional data elements and review your analytical results
- Schedule
  - Break at 10:30 a.m./2:30 p.m. ET for approximately 10 minutes
  - Resume around 10:40 a.m./2:40 p.m. ET
- Questions and discussion at the end of the meeting

Agenda for Public Water Systems

9:00 – 9:10 / 1:00 – 1:10	Welcome, Introduction, Agenda	(10 minutes)
9:10 – 9:25 / 1:10 – 1:25	Overview of the UCMR 4 Program	(15 minutes)
9:25 – 9:45 / 1:25 – 1:45	UCMR 4 Sample Collection & Frequency	(20 minutes)
9:45 – 10:30 / 1:45 – 2:30	PWS Functions in SDWARS	(45 minutes)
	Log in to CDX	
	Accept Notification Letter	
	Add Official and Technical Contacts	
	Add Inventory	
	Review/Edit Inventory	
	Review Sampling Schedule	
	Enter Data Elements	
	Review Data	
	Add Zip Codes	
	Nominate Users	
10:30 – 10:40 / 2:30 – 2:40	**Break**	**(10 minutes)**
10:40 – 10:55 / 2:40 – 2:55	Reporting Requirements and Data Elements	(15 minutes)
10:55 – 11:05 / 2:55 – 3:05	Risk Communication & Closing Remarks	(10 minutes)
11:05 – 12:00 / 3:05 – 4:00	Questions	

Overview of the UCMR 4 Program

Brenda Parris, USEPA

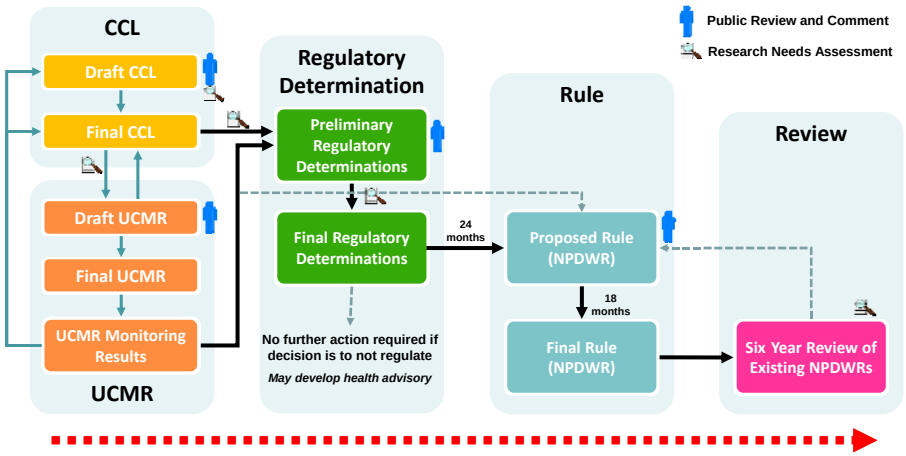
Overview

- Regulatory background for UCMR
  - SDWA authority
  - Relationships to:
    - Contaminant Candidate List (CCL)
    - Regulatory Determination
    - Six-Year Review
- UCMR
  - Objectives
  - Approach
  - Design
  - Applicability
  - Implementation
    - Roles
    - Timeline
  - Contaminants

SDWA

- Passed in 1974, SDWA authorized EPA to set enforceable health standards for contaminants in drinking water
  - National Primary Drinking Water Regulations (NPDWRs)
- 1986 SDWA amendments were the basis for the original UCMR
  - State drinking water programs managed the original UCM program
  - PWSs serving > 500 people were required to monitor
- 1996 SDWA amendments changed the process of developing and reviewing NPDWRs
  - CCL
  - UCMR
  - Regulatory Determination
  - Six-Year Review

General Flow of SDWA Regulatory Processes



UCMR

- SDWA section 1445(a)(2), established requirements for the UCMR Program:
  - Issue list of no more than 30 unregulated contaminants, once every 5 years
  - Require PWSs serving population >10,000 people as well as a nationally representative sample of PWSs serving ≤10,000 people to monitor
  - Store analytical results in the National Contaminant Occurrence Database for Drinking Water (NCOD)
  - EPA funds shipping/analytical costs for small PWSs
- EPA manages program in partnership with States

Objective of UCMR Program

- Collect nationally representative occurrence data for unregulated contaminants that may require regulation under the SDWA
  - Consider data collected as part of future EPA decisions on actions to protect public health
  - Provide data to States, local governments and to the public for their use in decisions regarding public health protection

National occurrence data publically available:
https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule

UCMR Approach

- UCMR approach relies on using one or more of 3 monitoring tiers
  - Assessment Monitoring (List 1)
  - Screening Survey (List 2)
  - Pre-Screen Testing (List 3)
- Based on:
  - Availability and complexity of analytical methods
  - Laboratory capacity
  - Sampling frequency
  - Relevant universe of PWSs
  - Other considerations (e.g., cost/burden)
- UCMR 4 only involves Assessment Monitoring

General UCMR 4 Applicability

- UCMR 4 (2017-2021, 30 contaminants)
  - Published in the FR on December 20, 2016
  - PWSs monitor 2018-2020
- All large CWSs and NTNCWSs serving more than 10,000
- Nationally representative sample of small CWSs and NTNCWSs
- TNCWSs are not required to monitor

UCMR 4 Applicability to PWSs: Assessment Monitoring Design (List 1)

System Size (# of people served)	10 Cyanotoxins	20 Additional Chemicals*	Total # of Systems per Size Category
Small systems (25 – 10,000)	800 randomly selected SW or GWUDI systems	800 randomly selected SW, GWUDI and GW systems	1,600
Large systems** (10,001 and over)	All SW or GWUDI systems (1,987)	All SW, GWUDI and GW systems (4,292)	4,292
TOTAL	2,787	5,092	5,892

*Only systems subject to the Disinfectants and Disinfection Byproduct Rule (D/DBPR) need to monitor for the haloacetic acids (HAAs) and indicators
** Figures subject to change based on corrections to population served as of 12/31/15

EPA Implementation Roles

- Review, track and determine PWS applicability and monitor progress
- Coordinate Laboratory Approval Program
- Provide technical support to Regions, States, PWSs and laboratories
- Coordinate outreach
- Assist and support Regional compliance efforts

EPA Implementation Roles

- Small PWS support:
  - Fund small system testing including: kits, sample analysis and shipping
  - Manage sample kit distribution
  - Maintain lab and implementation contracts to support UCMR
  - Conduct data review
- Large and small PWS support:
  - Manage SDWARS reporting system and support users
- Post data to NCOD

States' Role in the UCMR Program

- Participation by States, tribes and territories (herein after referred to as "States") is voluntary
- State roles are documented via Partnership Agreements (PAs)
- States help EPA implement the UCMR program; help to ensure high data quality
- PA activities can include any/all of the following:
  - Review and revise State monitoring plans (SMPs)
  - Provide inventory for small and large systems (SSI & LSI)
  - Review and approve proposed ground water representative monitoring plans (GWRMPs)
  - Provide compliance assistance
  - Notify and instruct systems
  - Collect samples
  - Other activities

Timeline of UCMR 4 Implementation

2017	2018	2019	2020	2021
Pre-monitoring Implementation • Continuation of Lab Approval • PWS SDWARS registration/ notification/ inventory • PAs, SMPs, SSIs, LSIs • GWRMP submittal • Outreach/trainings	**Assessment Monitoring List 1 Contaminants** **Implementation Activities** • Assist PWSs with compliance • Implement small system monitoring • Post data quarterly to NCOD **Reporting and analysis of data** • All large systems serving more than 10,000 people • 800 SW and GWUDI small systems serving 10,000 or fewer people for cyanotoxins • 800 small systems serving 10,000 or fewer people for the 20 additional contaminants			**Post-monitoring Phase** • Complete resampling • Conclude data reporting • Finalize NCOD • Continued enforcement

UCMR 4 Contaminants

Cyanotoxins EPA Method 544 (LC MS/MS[1])	
microcystin-LA	microcystin-RR
microcystin-LF	microcystin-YR
microcystin-LR	nodularin
microcystin-LY	

Cyanotoxins EPA Method 546 (Adda ELISA[2])
"total microcystins"

Cyanotoxins EPA Method 545 (LC/ESI MS/MS[3])	
anatoxin-a	cylindrospermopsin

[1]Liquid Chromatography/Tandem Mass Spectrometry
[2](2S,3S,8S,9S,4E,6E)-3-amino-9-methoxy-2,6,8-trimethyl-10-phenyl-4,6-decadienoic acid enzyme-linked immunosorbent assay
[3]Liquid Chromatography Electrospray Ionization-Tandem Mass Spectrometry

UCMR 4 Contaminants

Pesticides EPA Method 525.3 (SPE GC/MS[1])	
alpha-hexachlorocyclohexane	profenofos
chlorpyrifos	tebuconazole
dimethipin	total permethrin (cis- & trans)
ethoprop	tribufos
oxyfluorfen	

Metals EPA Method 200.8 (ICP/MS[2]), SM[3] or ASTM[3]	
germanium	manganese

DBP[4,5,6] EPA Method 552.3 (GC/ECD[7]) or 557 (IC/ESI MS/MS[8])	
HAA5[7] (regulated)	HAA9
HAA6Br	

Alcohols EPA Method 541 (GC/MS[9])	
1-butanol	2-propen-1-ol
2-methoxyethanol	

Semivolatile Organics EPA Method 530 (GC/MS[9])	
butylated hydroxyanisole	quinolone
o-toluidine	

[1] Solid Phase Extraction and Capillary Column Gas Chromatography-Mass Spectrometry
[2] Inductively Coupled Plasma-Mass Spectrometry
[3] Metals can also be measured by alternate Standard Methods (SM) 3125 or SM 3125-09 or ASTM International D5673-10
[4] Disinfect Byproduct Information Collection Rule (DBP ICR) (1997-1998)
[5] The HAA5 group is currently regulated in drinking water at a maximum contaminant level (MCL) of 60 µg/L per D/DBPRs.
[6] PWSs are required to monitor for the indicators total organic carbon (TOC) and bromide in their source water at the same time as their HAA samples. Consecutive connections are not required to take TOC and bromide samples.
[7] Gas Chromatography with Electron Capture Detection
[8] Ion Chromatography Electrospray Ionization Tandem Mass Spectrometry
[9] Gas Chromatography-Mass Spectrometry

HAA Indicators

- TOC and bromide measured in conjunction with HAA monitoring
- Use the following methods:
  - **TOC:** SM 5310B, SM 5310C, SM 5310D, SM 5310B–00, SM 5310C–00, SM 5310D–00, EPA Method 415.3 (Rev. 1.1 or 1.2)
  - **Bromide:** EPA Methods 300.0 (Rev. 2.1), 300.1 (Rev. 1.0), 317.0 (Rev. 2.0), 326.0 (Rev. 1.0), ASTM D 6581–12

UCMR 4
Sample Collection & Frequency

Brenda Parris, USEPA

Overview

- Sampling:
  - Frequency and timing
  - Schedule
  - Locations, approach
    - Phased sample-analysis for microcystins
    - Haloacetic acid (HAA) groups
    - HAA indicators (TOC & bromide)
- Representative sampling
  - Ground water representative monitoring plans (GWRMPs)
  - Representative connections

Sampling Frequency and Timing

Contaminant Type	Water Source	Time Frame	Frequency
List 1 Contaminants - **Cyanotoxins**	SW or GWUDI	March – November*	Systems must monitor twice a month for 4 consecutive months (total of 8 sampling events) Sample events must occur 2 weeks apart
List 1 Contaminants – **Additional Chemicals**	SW or GWUDI	Year-Round	Systems must monitor 4 times during a consecutive 12-month monitoring period Sample events must occur 3 months apart
	GW		Systems must monitor 2 times during a consecutive 12-month monitoring period Sample events must occur 5-7 months apart

*Reflects the warmer months when harmful algal blooms are more likely to occur

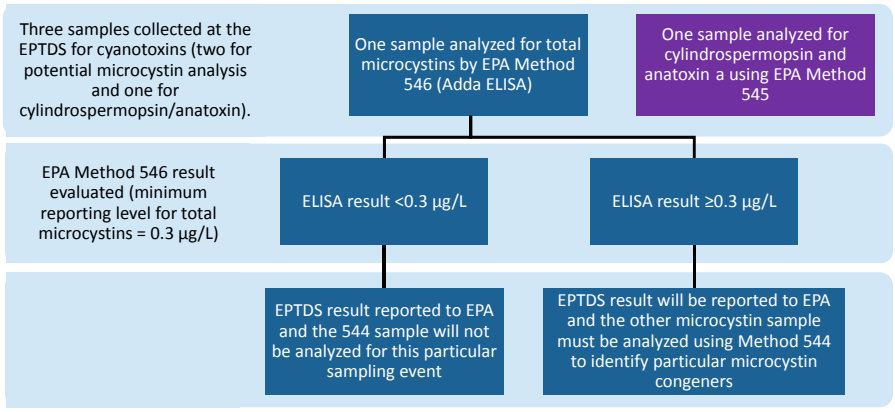
Sampling Schedules

- Large system schedules
  - EPA initially drafts schedule
  - Partnered state has opportunity to review and modify
  - PWS has opportunity to review and modify
    - Systems must NOT modify their schedules to avoid a suspected vulnerable period
- Small system schedules
  - EPA initially drafts schedule
  - Partnered state has opportunity to review and modify

Sampling Locations

- HAA Groups and Indicators
  - HAAs: collect UCMR 4 HAA samples at the D/DBPR locations where HAA5 is sampled in the distribution system (DS) for compliance monitoring
  - Indicators: source water (SR) influent locations representing untreated water
- Cyanotoxins & Remaining UCMR 4 Contaminants
  - Entry point to the distribution system (EPTDS) after treatment is applied

Sampling Locations – Cyanotoxins



Cyanotoxin Resampling

- If a sample is invalid, it should be resampled if it can be re-collected prior to the next scheduled sampling event (~2 weeks). In those cases, where it proves impractical to resample, PWSs should enter a comment in SDWARS outlining the circumstances of the missing result.
  - Example: A PWS sample has a 546 (ELISA) result ≥ 0.3 µg/L but method 544 is invalid. If re-collection cannot happen prior to the next scheduled sampling event, a resample for 544 is not required. The results for method 546 should be reported.
  - Example: A PWS sample for method 546 is invalid. If re-collection can happen prior to the next scheduled sampling event, it is recommended to resample both 546 and 544.

Sampling Locations - HAA Groups

- PWS HAA results will be reported for three groups (HAA5, HAA6Br and HAA9)
  - ALL individual HAAs must pass QC within a sample (same collection date) for summation
  - Resample only locations that did not produce valid results for all analytes

HAA Groups			
dichloroacetic acid (DCAA)	HAA5 (MCL 0.060 mg/L)		HAA9
monochloroacetic acid (MCAA)			
trichloroacetic acid (TCAA)			
monobromoacetic acid (MBAA)		HAA6Br	
dibromoacetic acid (DBAA)			
bromochloroacetic acid (BCAA)			
bromodichloroacetic acid (BDCAA)			
chlorodibromoacetic acid (CDBAA)			
tribromoacetic acid (TBAA)			

November 2017 U.S. Environmental Protection Agency 29

Sampling Locations – HAA Groups

Source Water Type	Population	Number of UCMR 4 HAA Sampling Locations based on the Number of D/DBPR Locations where HAA5 is Sampled for Compliance	
		Routine Monitoring	Reduced Monitoring
SW and GWUDI (Subpart H)	< 500	1	1
	500 - 3,300	1	1
	3,301 - 9,999	2	2
	10,000 - 49,000	4	2
	50,000 - 249,999	8	4
	250,000 - 999,999	12	6
	1,000,000 -4,999,999	16	8
	≥ 5,000,000	20	10
Ground Water	< 500	1	1
	500-9,999	2	1
	10,000-99,999	4	2
	100,000-499,999	6	2
	≥ 500,000	8	4

November 2017 U.S. Environmental Protection Agency 30

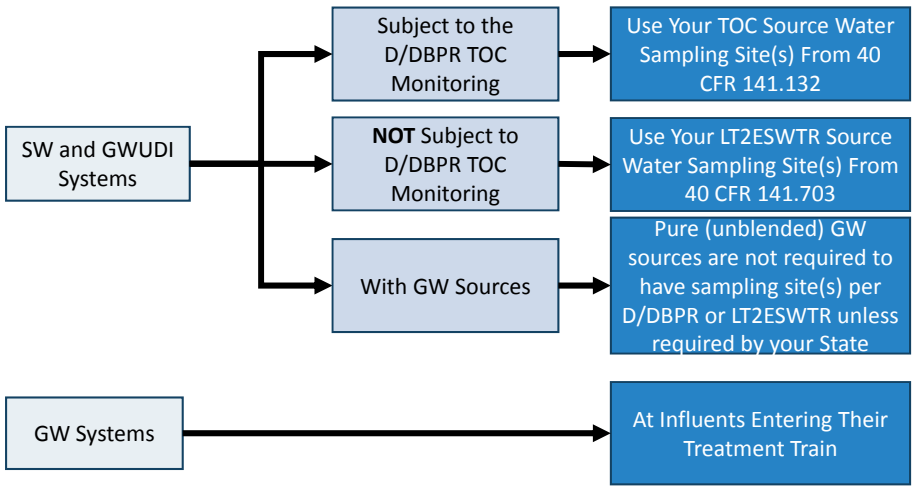
HAA Sampling Locations: Approach

- Systems must:
  - Input inventory into SDWARS based on current D/DBPR monitoring requirements and status (routine or reduced)
  - Use inventory from first sampling event for subsequent sampling events
  - Comply with the UCMR 4 frequency requirements even if on reduced D/DBPR monitoring
- Systems can:
  - Take UCMR 4 HAA/indicator samples and D/DBPR compliance samples at the same time
    - PWSs can change their sampling schedules in SDWARS without EPA approval prior to December 31, 2017. After that, you must contact UCMR_Sampling_Coordinator@epa.gov
  - Use one lab for UCMR 4 and D/DBPR analysis IF the UCMR 4 approved lab is also certified to analyze compliance samples (using EPA Method 552.3 or 557) in your State

HAA Indicator Sampling Locations: Approach

- Sample for TOC and bromide at:
  - Source water influent locations representing untreated water entering the water treatment plant (i.e., a location prior to any treatment)
  - The same time as HAA samples (or as close as is feasible)
  - Entry points associated with 100% purchased water (consecutive connections) do not need to be sampled for TOC and bromide

TOC and Bromide Monitoring



TOC and Bromide Sampling Locations

- SW and GWUDI (Subpart H systems) subject to D/DBPR TOC sampling requirements
  - Using conventional filtration
  - NOT using conventional filtration but taking TOC source samples to reduce their D/DBPR monitoring
- Take UCMR 4 indicator samples at D/DBPR source water TOC locations:
  - Prior to any treatment
  - One sample per surface water source

TOC and Bromide Sampling Locations

- SW and GWUDI (Subpart H systems) not subject to D/DBPR TOC sampling requirements
  - Not using conventional filtration or trying to reduce D/DBPR monitoring requirements
- Take UCMR 4 indicator samples at LT2 source water locations:
  - For each plant at a point prior to chemical treatment (applies to surface water sources)

TOC and Bromide Sampling Locations

- SW and GWUDI systems that have pure unblended GW sources
  - Are not required to have GW sampling site(s) per D/DBPR or LT2 unless required by your State

TOC and Bromide Sampling Locations

- GW Systems not subject to D/DBPR TOC sampling requirements
- Take UCMR 4 indicator samples at ALL influents entering treatment train
  - Can use combined taps prior to treatment
  - If have an approved GWRMP only need to take indicator samples representing those EPs
  - Only take indicator samples from active wells at time of collection
    - Add a comment in SDWARS for the non-active locations

HAA and Indicator (TOC & Br) Resampling

- HAAs: Resample only location(s) that did not produce valid results for all analytes
- TOC and Br: Resample only location(s) that did not produce valid results
- Example: A PWS has four HAA distribution system locations and two TOC and Br source water locations. One of the HAA locations is invalid and one of the TOC locations is invalid. Only resample those locations that are invalid.
  - The sampler should re-collect the HAA and TOC samples at the same time (or as close as is feasible).
- Example: The same PWS (described above) only has an invalid TOC sample at one location. Only resample that TOC location.

Analyzing TOC and Bromide Samples

- Laboratory Approval Registration closed **February 21, 2017** (except TOC and bromide)
  - Laboratories (including PWS labs) that only wish to analyze TOC and/or bromide may apply for authorization through **December 1, 2017**
  - These PWS laboratories must complete registration and submit documentation that they are authorized to analyze TOC and/or bromide compliance monitoring samples under the Stage 2 D/DBPR by **December 15, 2017**
  - These PWS laboratories will receive a CRK separately from their PWS CRK to enter their TOC and/or bromide data into SDWARS4
  - UCMR_Lab_Approval@epa.gov

Two Types of Representative Sampling

- All approved representative locations must be loaded into SDWARS by PWS no later than December 31, 2017
  - **Ground Water Representative Monitoring Plans (GWRMPs)** – large ground water systems with multiple EPTDSs can sample at representative sampling locations rather than at each EPTDS if prior approval is received
    - GWRMP sampling plans and renewals are due to UCMR_Sampling_Coordinator@epa.gov
  - **Representative Connections** - systems that purchase water with multiple connections from the same wholesaler may select one representative connection from that wholesaler

PWS Functions in SDWARS

Jillian Toothman, USEPA

Overview

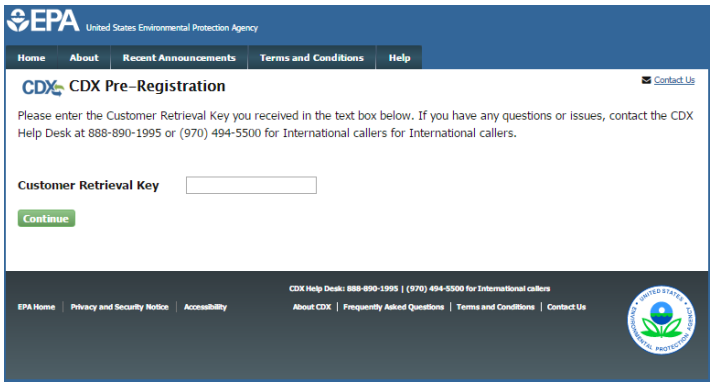
- Central Data Exchange (CDX) account
  - Customer retrieval keys (CRKs)
- SDWARS workflow
- SDWARS tools
  - Instructions document
  - Sitemap

CDX

- EPA will again be using an internet-based electronic reporting system that utilizes a secure access portal, the CDX, to gain access to SDWARS
  - https://cdx.epa.gov/
  - https://www.epa.gov/dwucmr/reporting-requirements-fourth-unregulated-contaminant-monitoring-rule-ucmr-4

CDX

1. Go to http://cdx.epa.gov/preregistration/.
2. Enter the CRK you received by mail.
3. Follow the directions to complete registration (create your user ID and password).



Customer Retrieval Keys (CRKs)

- CRK letters were sent January 2017
  - EPA resent CRK letters in October to all the water systems who have not logged into their CDX accounts and accepted the notification letter
- Contact the CDX Help Desk:
  - If you did not receive a CRK letter or misplaced it
  - Official contact has changed
  - Need help with log-in

(888) 890-1995
helpdesk@epacdx.net

Customer Retrieval Keys (CRKs)

- Large and small water systems must to log into SDWARS
- This is our main way of communicating with water systems regarding:
  - Deadlines
  - Inventory
  - Changes/corrections
  - Sampling reminders
  - Availability of analytical results
  - Etc.

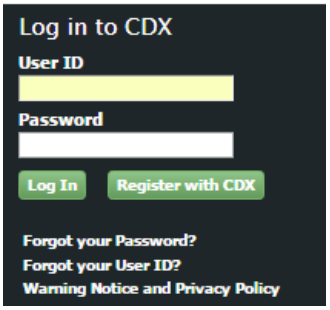
SDWARS Large System Workflow

1. Log in to CDX UCMR 4 (also applies to small systems)
2. Select SDWARS4 and accept notification letter (also applies to small systems)
3. Add official and technical contacts
4. Add inventory
5. Review/edit inventory
6. Review sampling schedule
7. Enter data elements
8. Review data
9. Add zip codes
10. Nominate user for your PWS (optional)

SDWARS is still under development and could be improved based on feedback. The screen shots may look different in the future.

The following slides are applicable to large and small systems.

Step 1: Log in to CDX UCMR 4

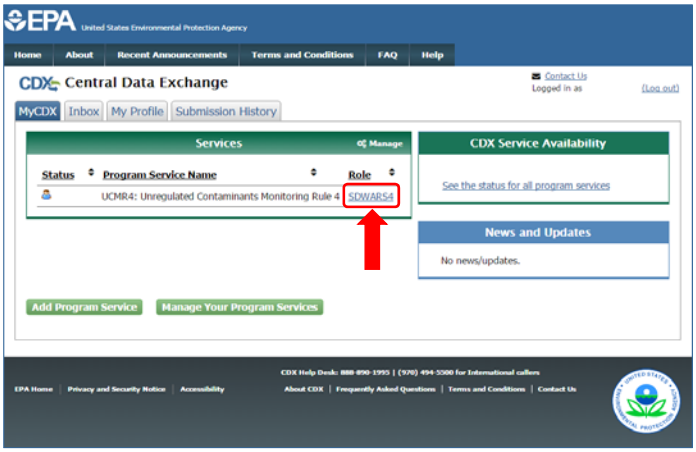


https://cdx.epa.gov/

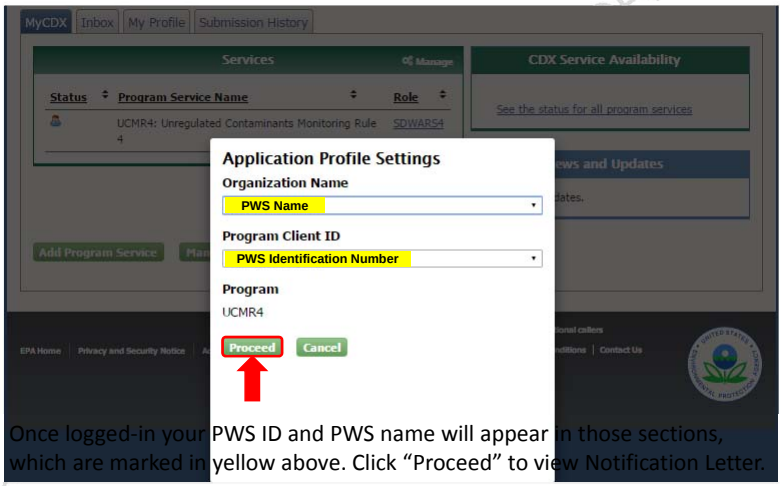
Step 2: Select SDWARS4 and Accept Notification Letter

- Applies to large and small systems
- To view and accept your notification letter you must log in to SDWARS4
- Status of acceptance of notification is tracked in SDWARS4 and can be viewed by EPA, States and Regions

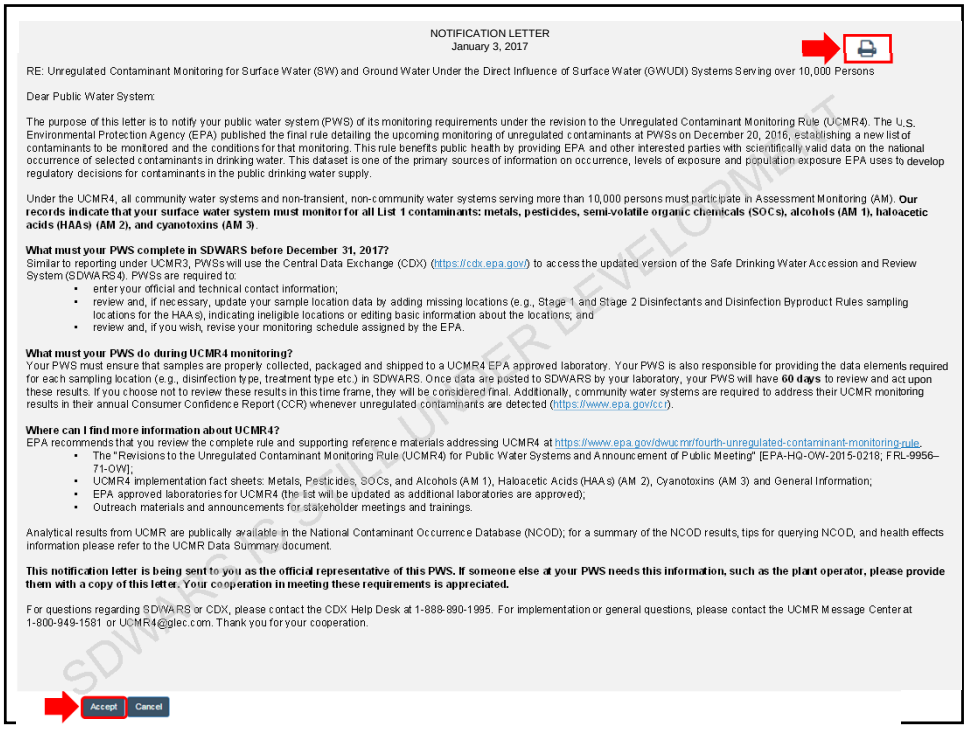
Step 2a: Select SDWARS4



Step 2b: Application Profile Settings



Once logged-in your PWS ID and PWS name will appear in those sections, which are marked in yellow above. Click "Proceed" to view Notification Letter.



NOTIFICATION LETTER
January 3, 2017

RE: Unregulated Contaminant Monitoring for Surface Water (SW) and Ground Water Under the Direct Influence of Surface Water (GWUDI) Systems Serving over 10,000 Persons

Dear Public Water System:

The purpose of this letter is to notify your public water system (PWS) of its monitoring requirements under the revision to the Unregulated Contaminant Monitoring Rule (UCMR4). The U.S. Environmental Protection Agency (EPA) published the final rule detailing the upcoming monitoring of unregulated contaminants at PWSs on December 20, 2016, establishing a new list of contaminants to be monitored and the conditions for that monitoring. This rule benefits public health by providing EPA and other interested parties with scientifically valid data on the national occurrence of selected contaminants in drinking water. This dataset is one of the primary sources of information on occurrence, levels of exposure and population exposure EPA uses to develop regulatory decisions for contaminants in the public drinking water supply.

Under the UCMR4, all community water systems and non-transient, non-community water systems serving more than 10,000 persons must participate in Assessment Monitoring (AM). **Our records indicate that your surface water system must monitor for all List 1 contaminants: metals, pesticides, semi-volatile organic chemicals (SOCs), alcohols (AM 1), haloacetic acids (HAAs) (AM 2), and cyanotoxins (AM 3).**

What must your PWS complete in SDWARS before December 31, 2017?
Similar to reporting under UCMR3, PWSs will use the Central Data Exchange (CDX) (https://cdx.epa.gov/) to access the updated version of the Safe Drinking Water Accession and Review System (SDWARS4). PWSs are required to:

- enter your official and technical contact information;
- review and, if necessary, update your sample location data by adding missing locations (e.g., Stage 1 and Stage 2 Disinfectants and Disinfection Byproduct Rules sampling locations for the HAAs), indicating ineligible locations or editing basic information about the locations; and
- review and, if you wish, revise your monitoring schedule assigned by the EPA.

What must your PWS do during UCMR4 monitoring?
Your PWS must ensure that samples are properly collected, packaged and shipped to a UCMR4 EPA approved laboratory. Your PWS is also responsible for providing the data elements required for each sampling location (e.g., disinfection type, treatment type etc.) in SDWARS. Once data are posted to SDWARS by your laboratory, your PWS will have **60 days** to review and act upon these results. If you choose not to review these results in this time frame, they will be considered final. Additionally, community water systems are required to address their UCMR monitoring results in their annual Consumer Confidence Report (CCR) whenever unregulated contaminants are detected (https://www.epa.gov/ccr).

Where can I find more information about UCMR4?
EPA recommends that you review the complete rule and supporting reference materials addressing UCMR4 at https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule.

- The "Revisions to the Unregulated Contaminant Monitoring Rule (UCMR4) for Public Water Systems and Announcement of Public Meeting" [EPA-HQ-OW-2015-0218; FRL-9956–71-OW];
- UCMR4 implementation fact sheets: Metals, Pesticides, SOCs, and Alcohols (AM 1), Haloacetic Acids (HAAs) (AM 2), Cyanotoxins (AM 3) and General Information;
- EPA approved laboratories for UCMR4 (the list will be updated as additional laboratories are approved);
- Outreach materials and announcements for stakeholder meetings and trainings.

Analytical results from UCMR are publically available in the National Contaminant Occurrence Database (NCOD); for a summary of the NCOD results, tips for querying NCOD, and health effects information please refer to the UCMR Data Summary document.

This notification letter is being sent to you as the official representative of this PWS. If someone else at your PWS needs this information, such as the plant operator, please provide them with a copy of this letter. Your cooperation in meeting these requirements is appreciated.

For questions regarding SDWARS or CDX, please contact the CDX Help Desk at 1-888-890-1995. For implementation or general questions, please contact the UCMR Message Center at 1-800-949-1581 or UCMR4@glec.com. Thank you for your cooperation.

Accept Cancel

SDWARS IS STILL UNDER DEVELOPMENT

Notification Letter

EPA United States Environmental Protection Agency — Logged in as: PWS: — Log Out

CDX

- PWS
  - Contacts
  - Inventory
  - Schedule/Data Elements
  - Review Data
  - Zip Code
  - Nominate User
  - Notification Letter
  - Need Help?
  - SDWARS4 Sitemap
- MyCDX

MyCDX > Notification Letter

Notification Letter

Below is a signed copy of the notification letter.

NOTIFICATION LETTER
January 3, 2017

RE: Unregulated Contaminant Monitoring for Small Water Systems

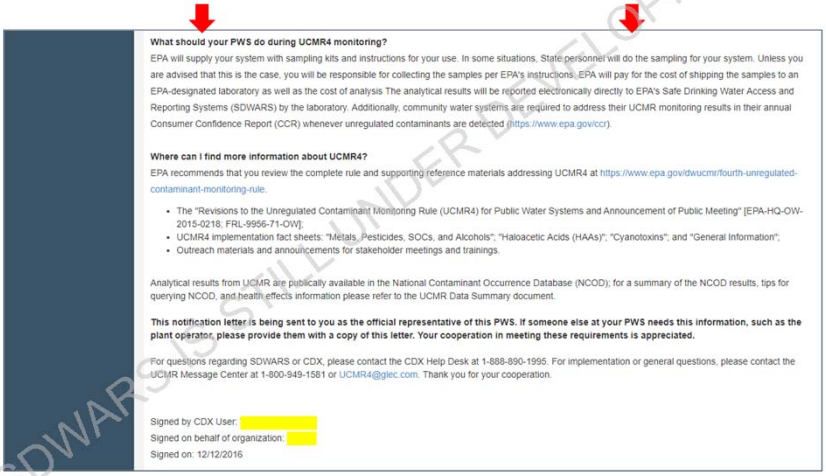
Dear Public Water System:

The purpose of this letter is to notify your public water system (PWS) of its monitoring requirements under the revision to the Unregulated Contaminant Monitoring Rule (UCMR4). The U.S. Environmental Protection Agency (EPA) published the final rule detailing the upcoming monitoring of unregulated contaminants at PWSs on December 20, 2016, establishing a new list of contaminants to be monitored and the conditions for that monitoring. This rule benefits public health by providing EPA and other interested parties with scientifically valid data on the national occurrence of selected contaminants in drinking water. This dataset is one of the primary sources of information on occurrence, levels of exposure and population exposure EPA uses to develop regulatory decisions for contaminants in the public drinking water supply.

Under the UCMR4, randomly selected community water systems and non-transient, non-community water systems serving 10,000 or fewer persons are selected to monitor for unregulated contaminants. **Your system has been selected for Assessment Monitoring for the following List 1 contaminants: metals, pesticides, semi-volatile organic chemicals (SOCs) and alcohols.**

SDWARS IS STILL UNDER DEVELOPMENT

Notification Letter



What should your PWS do during UCMR4 monitoring?

EPA will supply your system with sampling kits and instructions for your use. In some situations, State personnel will do the sampling for your system. Unless you are advised that this is the case, you will be responsible for collecting the samples per EPA's instructions. EPA will pay for the cost of shipping the samples to an EPA-designated laboratory as well as the cost of analysis The analytical results will be reported electronically directly to EPA's Safe Drinking Water Access and Reporting Systems (SDWARS) by the laboratory. Additionally, community water systems are required to address their UCMR monitoring results in their annual Consumer Confidence Report (CCR) whenever unregulated contaminants are detected (https://www.epa.gov/ccr).

Where can I find more information about UCMR4?

EPA recommends that you review the complete rule and supporting reference materials addressing UCMR4 at https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule.

- The "Revisions to the Unregulated Contaminant Monitoring Rule (UCMR4) for Public Water Systems and Announcement of Public Meeting" [EPA-HQ-OW-2015-0218; FRL-9956-71-OW];
- UCMR4 implementation fact sheets: "Metals, Pesticides, SOCs, and Alcohols"; "Haloacetic Acids (HAAs)"; "Cyanotoxins"; and "General Information";
- Outreach materials and announcements for stakeholder meetings and trainings.

Analytical results from UCMR are publically available in the National Contaminant Occurrence Database (NCOD); for a summary of the NCOD results, tips for querying NCOD, and health effects information please refer to the UCMR Data Summary document.

This notification letter is being sent to you as the official representative of this PWS. If someone else at your PWS needs this information, such as the plant operator, please provide them with a copy of this letter. Your cooperation in meeting these requirements is appreciated.

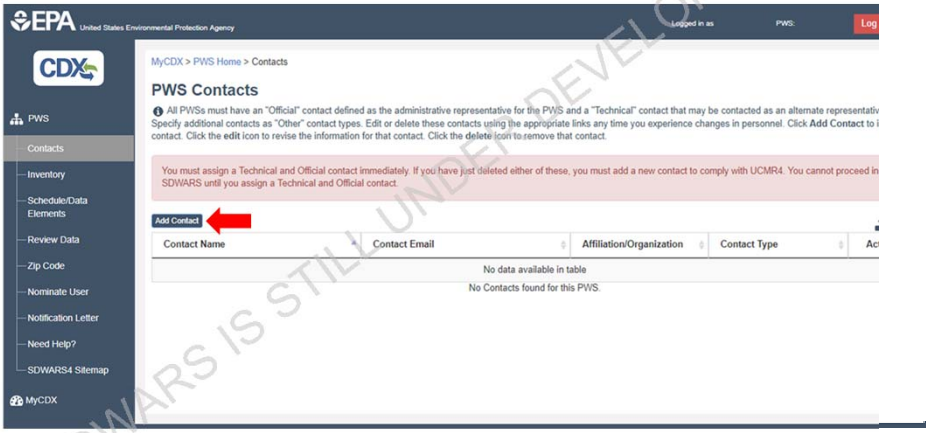
For questions regarding SDWARS or CDX, please contact the CDX Help Desk at 1-888-890-1995. For implementation or general questions, please contact the UCMR Message Center at 1-800-949-1581 or UCMR4@glec.com. Thank you for your cooperation.

Signed by CDX User:
Signed on behalf of organization:
Signed on: 12/12/2016

SDWARS IS STILL UNDER DEVELOPMENT

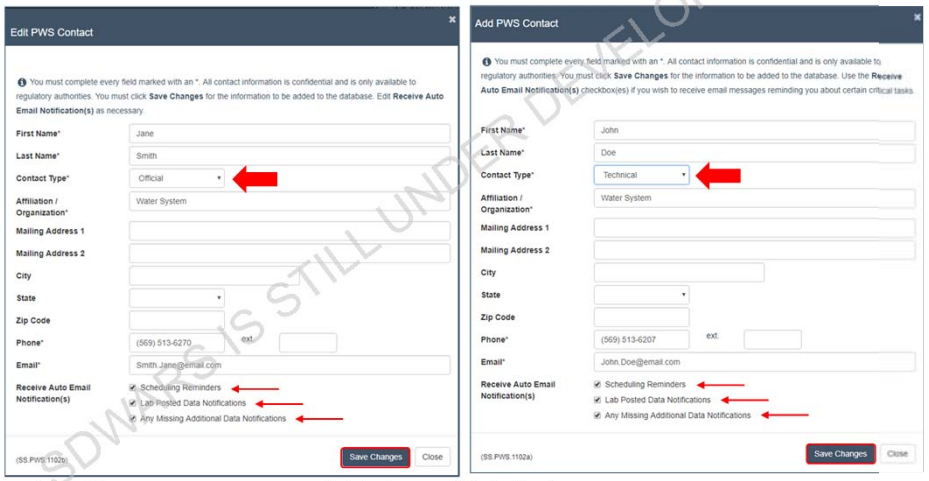
The following slides are applicable to large systems only.

Step 3: PWS Contacts



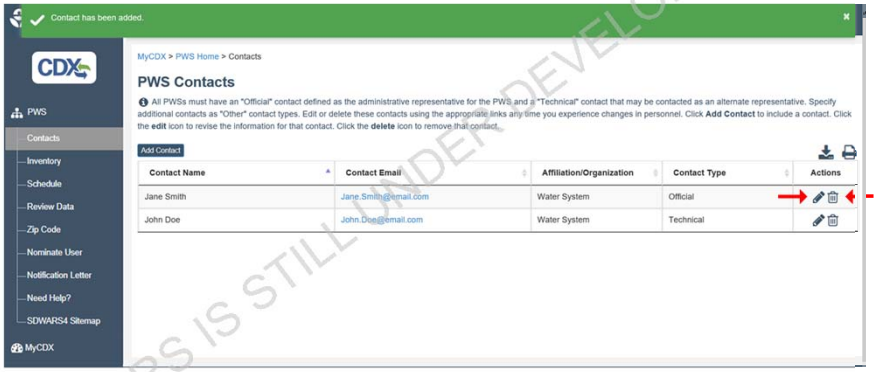
SDWARS IS STILL UNDER DEVELOPMENT

Step 3a: Add Official and Technical Contact



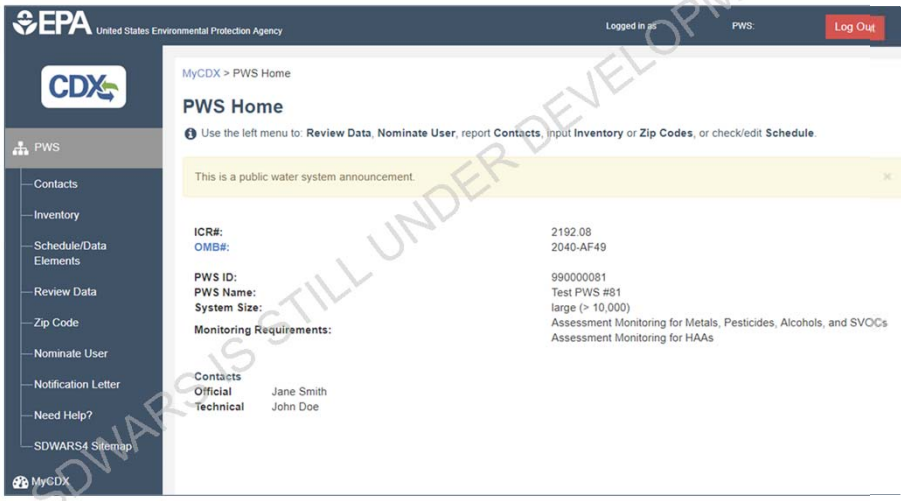
SDWARS IS STILL UNDER DEVELOPMENT

Step3b: Confirm Contacts



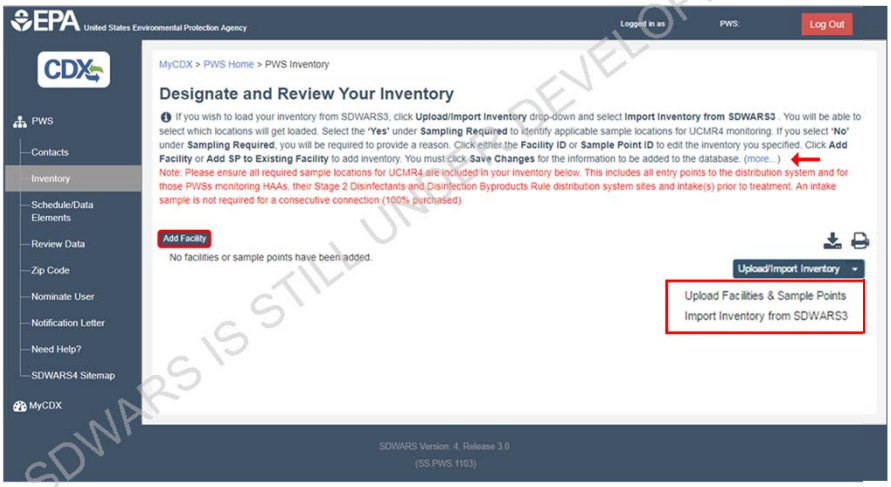
SDWARS IS STILL UNDER DEVELOPMENT

PWS Home



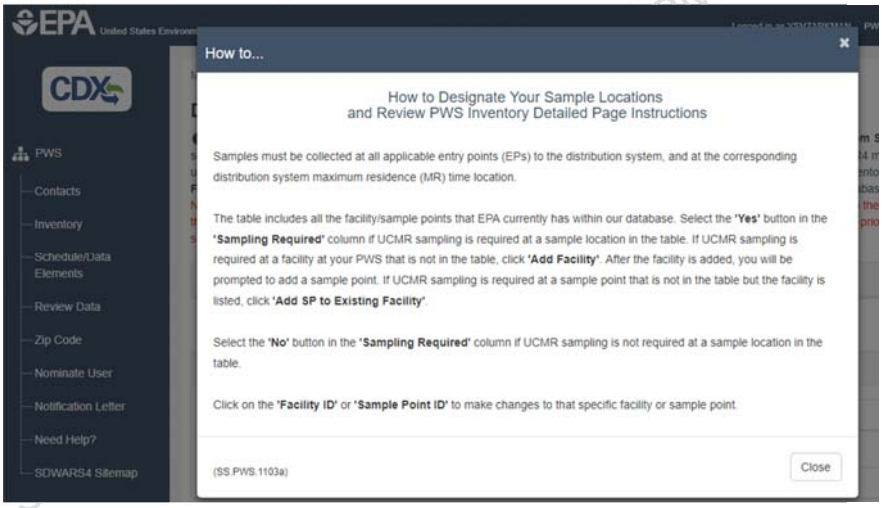
SDWARS IS STILL UNDER DEVELOPMENT

Step 4: Add Inventory



SDWARS IS STILL UNDER DEVELOPMENT

Step 4: Add Inventory

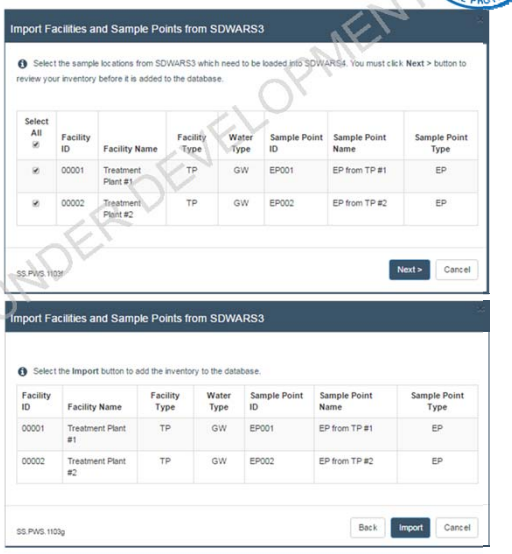


Step 4: Add Inventory

- Inventory can be added 3 ways:
  a. **Entry points can be imported from SDWARS3 system**
  b. **Uploaded by creating a text file**
  c. **Typed in manually**

Step 4a: Import from SDWARS3

- Use inventory (only includes entry points) from the previous SDWARS3 system
- Select those Facilities that are valid and import
- If subject to the D/DBPRs, upload a file or manually add your D/DBPR distribution and source water locations for the HAA monitoring



SDWARS IS STILL UNDER DEVELOPMENT

Step 4b: Upload Entry

- Create a file for a bulk upload using the following format
- If subject to the D/DBPRs include your D/DBPR distribution and source water locations for the HAA monitoring

SDWARS IS STILL UNDER DEVELOPMENT

File Structure For: Add Facility with Sample Point

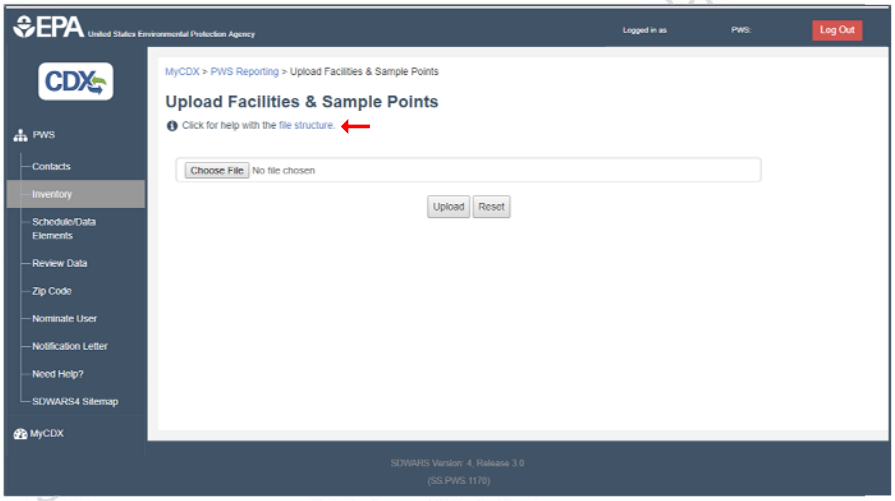
The **Add Facility with Sample Point** upload file:

- Must be a tab delimited text file
- Must contain a header row with the exact column names listed below
- Columns must be in the exact order shown below

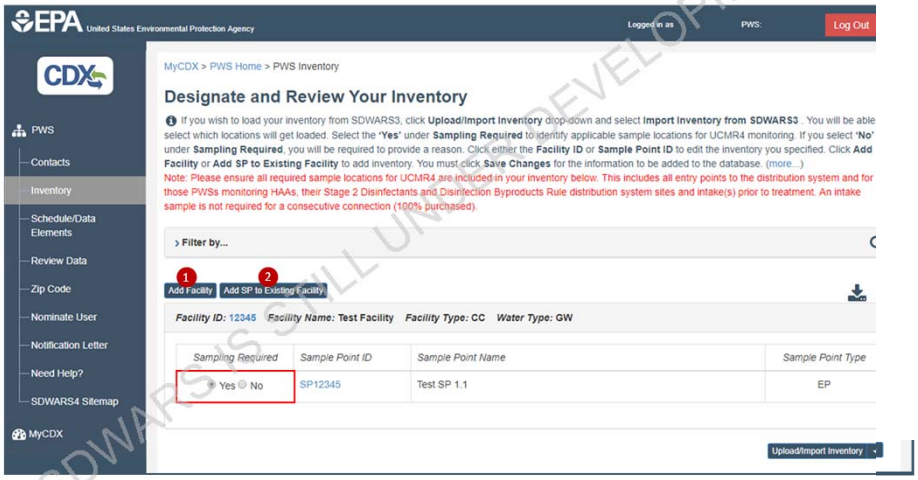
Column Name	Data Type	Required	Notes
FacilityId	Numeric (5)	Yes	Must be exactly 5 numeric digits
FacilityName	String (50)	Yes	
FacilityType	String (2)	Yes	Use 2-digit codes only; CC (Consecutive Connection) DS (Distribution System) IN (Intake (Source Water)) OT (Other) SS (Sampling Station) TP (Treatment Plant)
WaterType	String (2)	Yes	Use 2-digit codes only; GU (Groundwater UDI Surface Water) GW (Groundwater) MX (Mixed) SW (Surface Water)
SamplePointId	String (25)	Yes	
SamplePointName	String (50)	Yes	

(SS.PWS.1170a) Close

Step 4b: Upload Entry

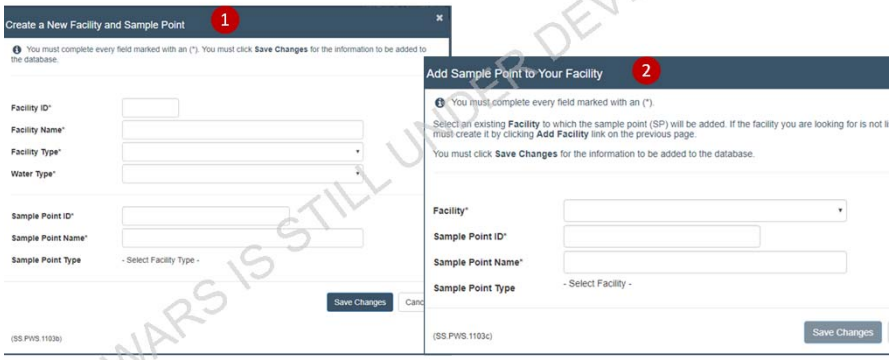


Step 4c: Manual Entry



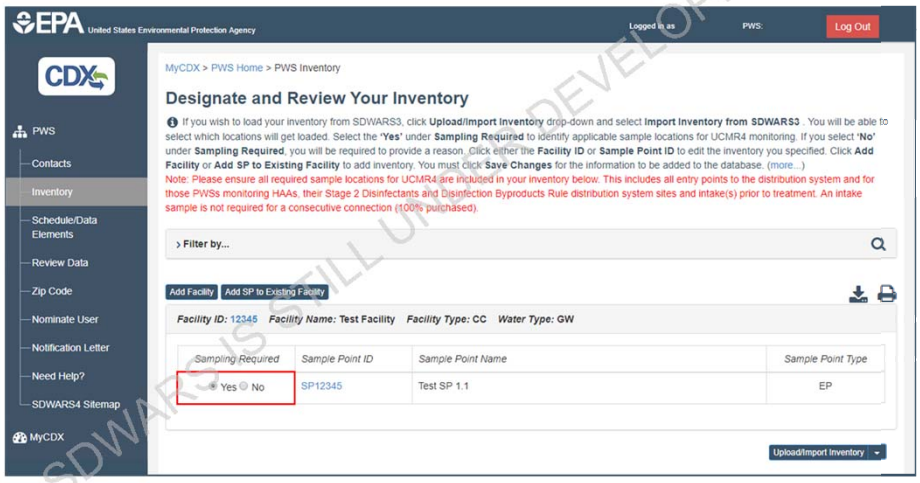
SDWARS IS STILL UNDER DEVELOPMENT

Step 4c: Manual Entry

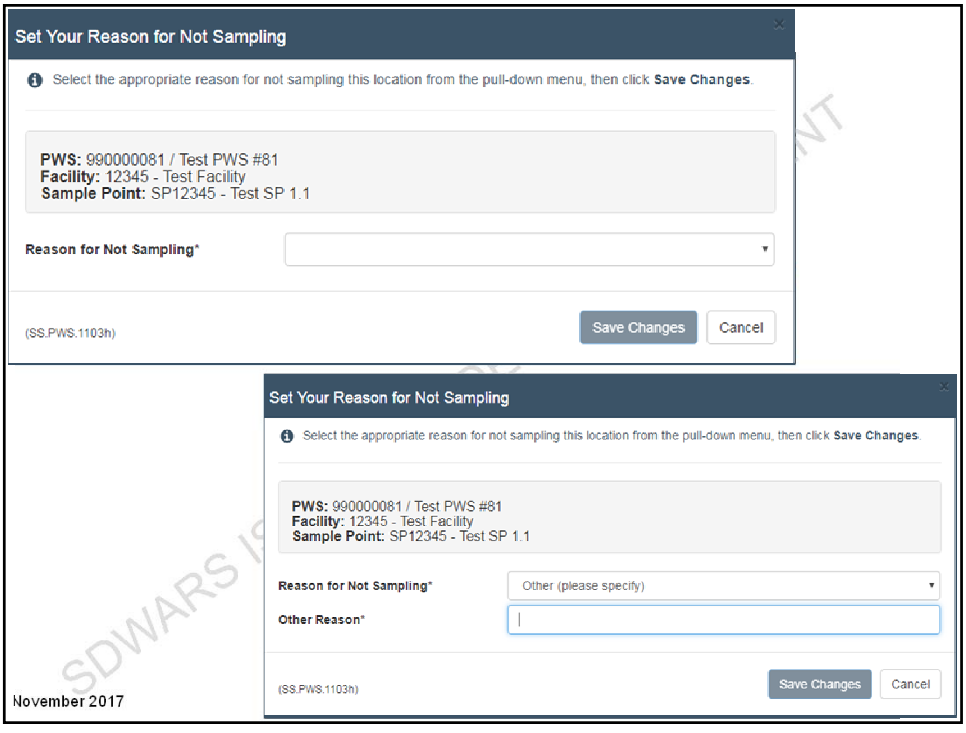


SDWARS IS STILL UNDER DEVELOPMENT

Step 5: Review/Edit Inventory

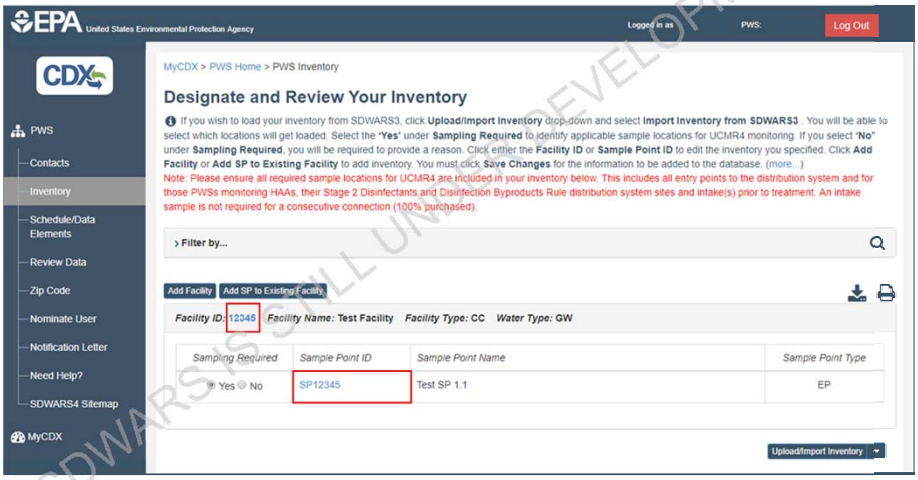


SDWARS IS STILL UNDER DEVELOPMENT



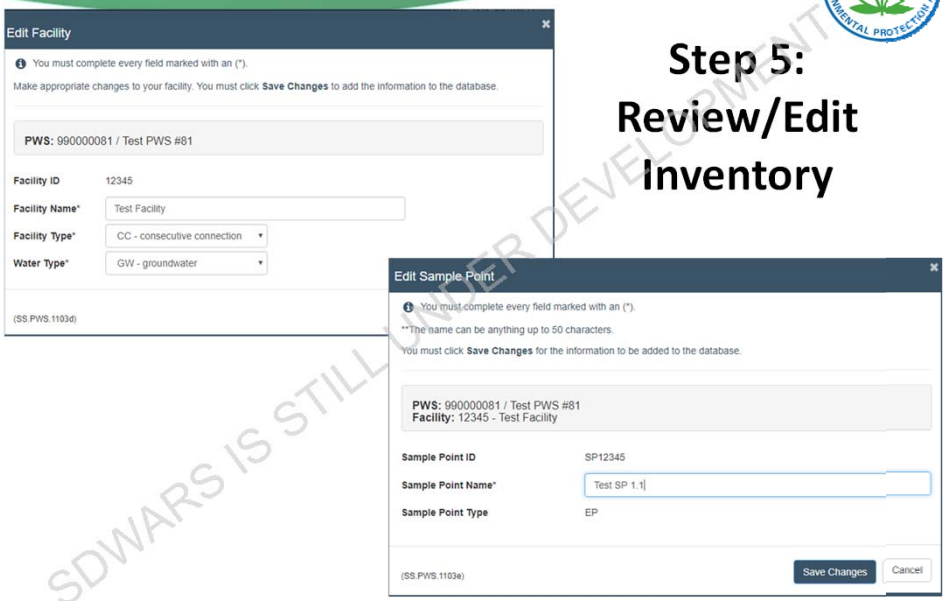
SDWARS IS STILL UNDER DEVELOPMENT

Step 5: Review/Edit Inventory



SDWARS IS STILL UNDER DEVELOPMENT

Step 5: Review/Edit Inventory

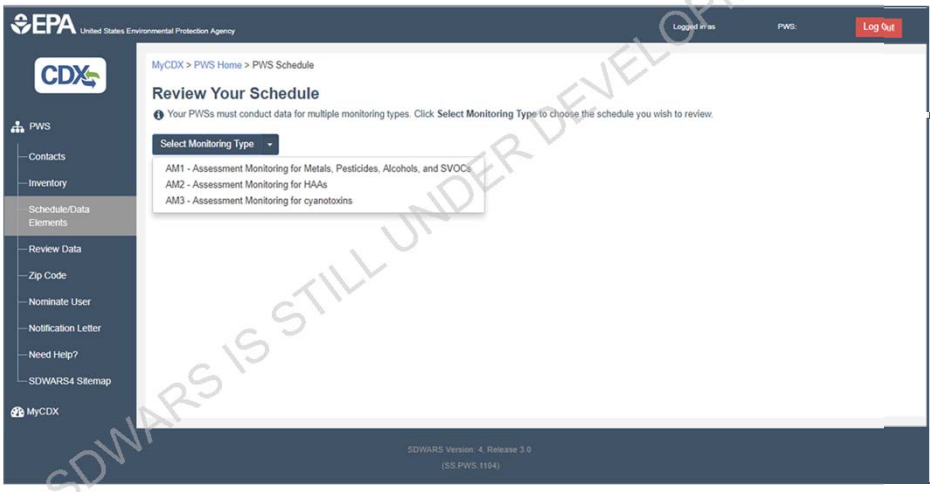


SDWARS IS STILL UNDER DEVELOPMENT

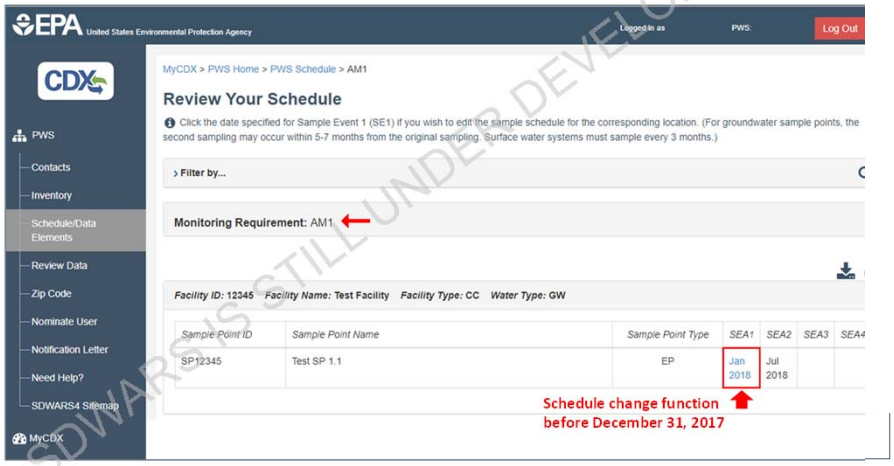
Step 6: Review Sampling Schedules

- Large system schedules
  - EPA initially drafts schedule
  - Partnered State has opportunity to review and modify
  - PWS has opportunity to review and modify
    - Systems must NOT modify their schedules to avoid a suspected vulnerable period
- Small system schedules
  - EPA initially drafts schedule
  - Partnered State has opportunity to review and modify

Step 6: Schedules



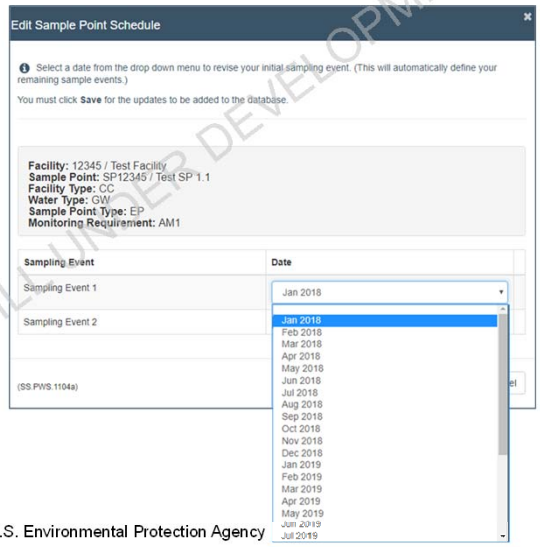
Step 6: Schedules before 12/31/17



SDWARS IS STILL UNDER DEVELOPMENT

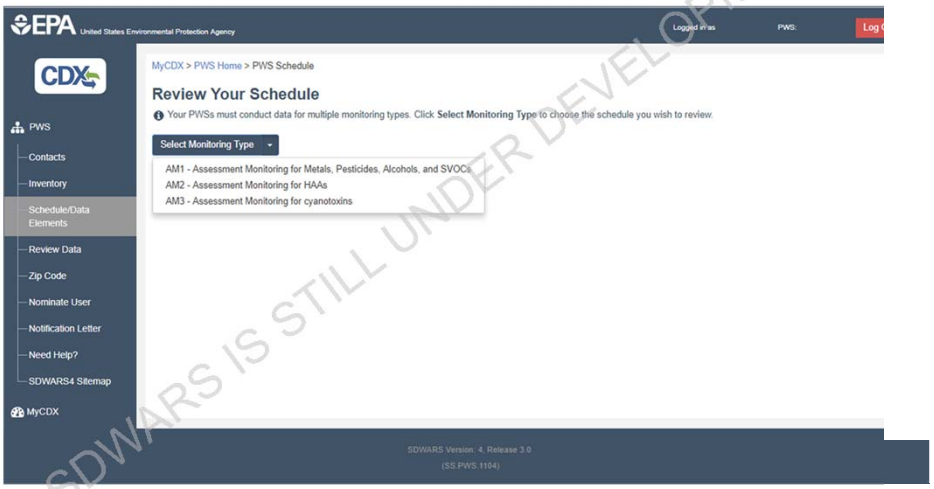
Step 6: Schedules before 12/31/17

Once you click on the sample event date it will prompt a window that will allow you to select different month and year from a drop-down menu.



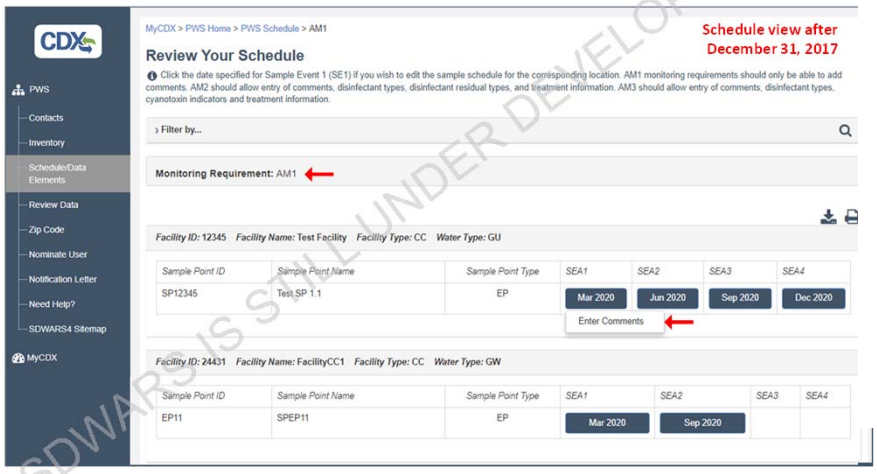
SDWARS IS STILL UNDER DEVELOPMENT

Step 7: Enter Data Elements



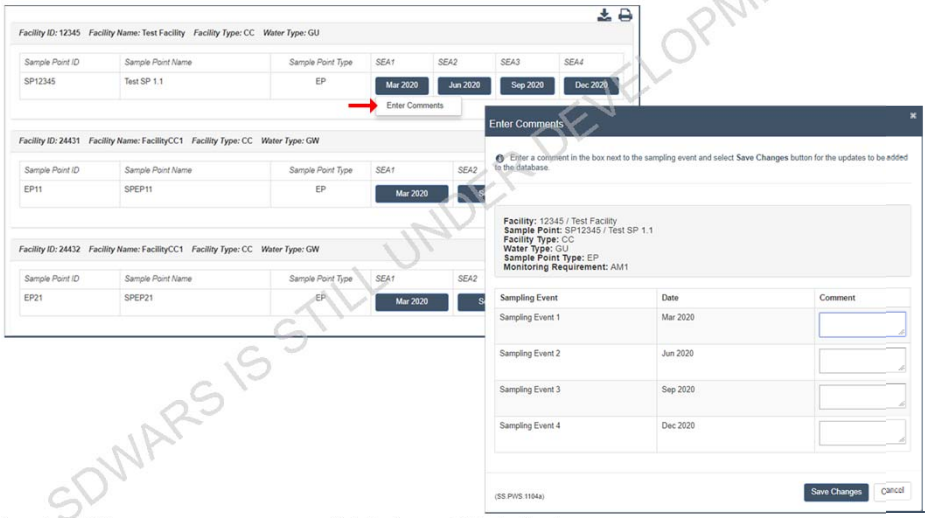
SDWARS IS STILL UNDER DEVELOPMENT

Step 7: Enter Data Elements



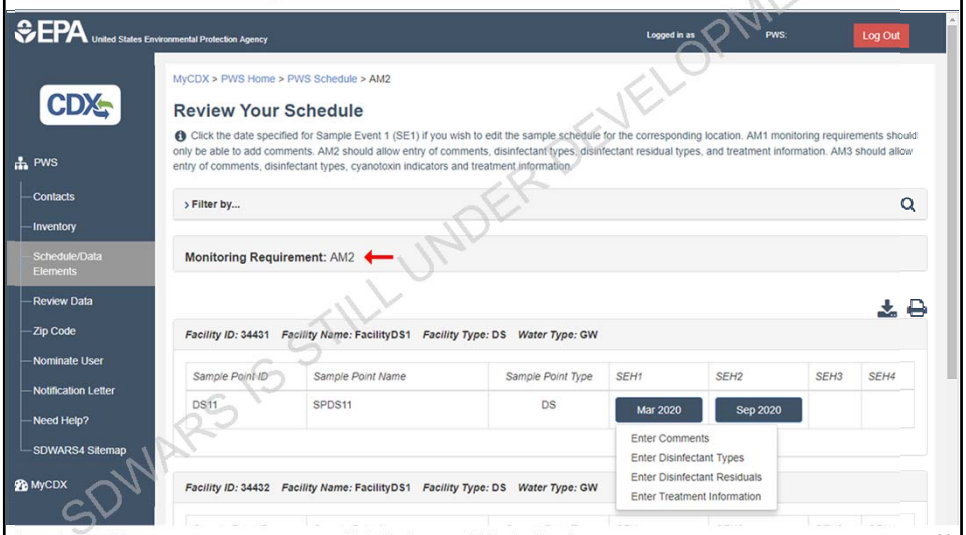
SDWARS IS STILL UNDER DEVELOPMENT

Step 7: Enter Data Elements

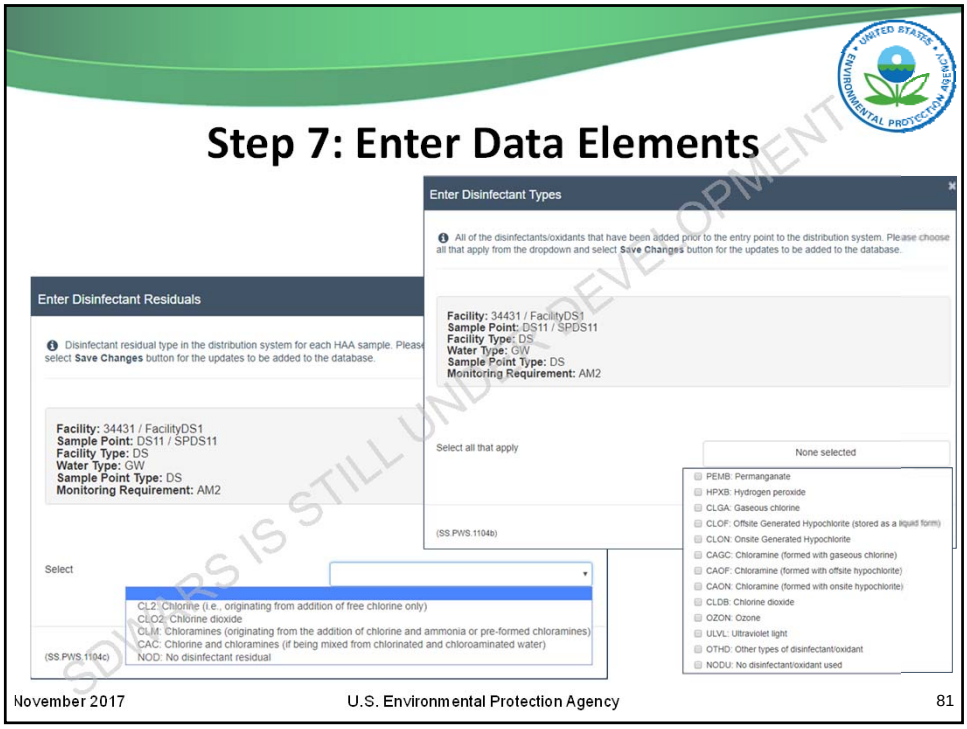


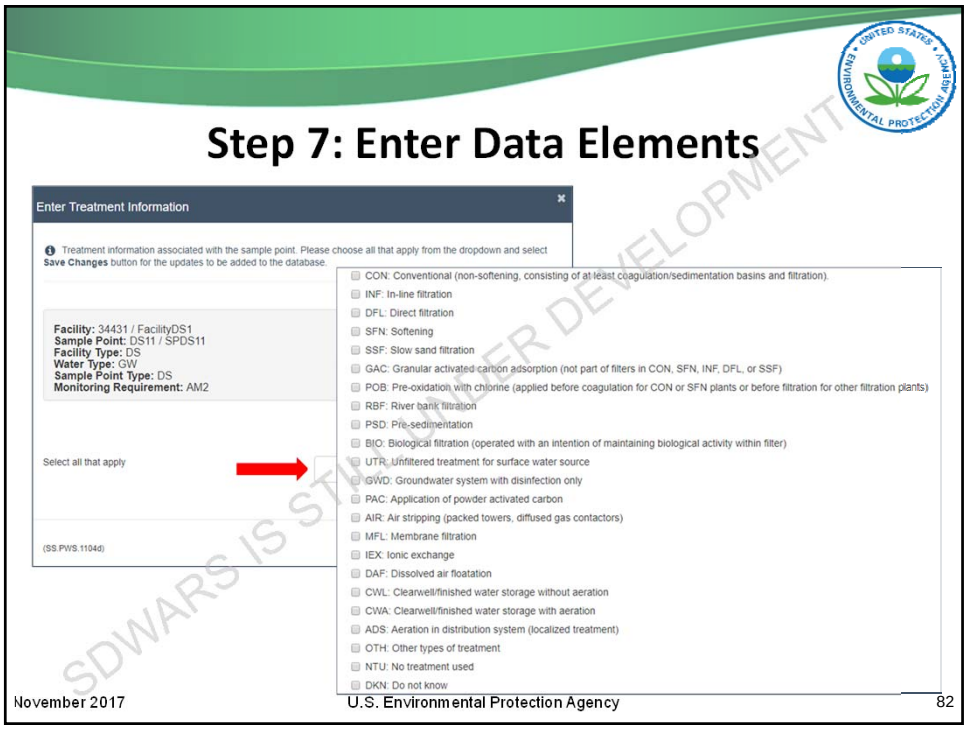
SDWARS IS STILL UNDER DEVELOPMENT

Step 7: Enter Data Elements

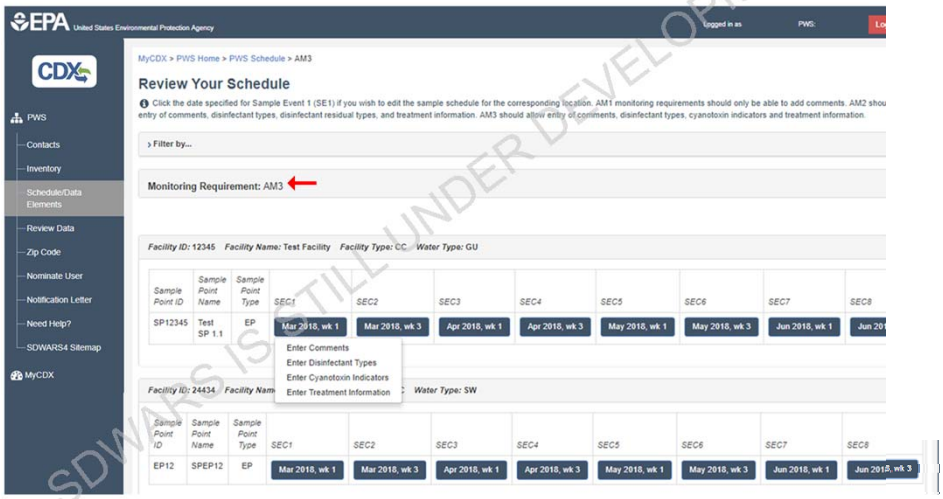


SDWARS IS STILL UNDER DEVELOPMENT

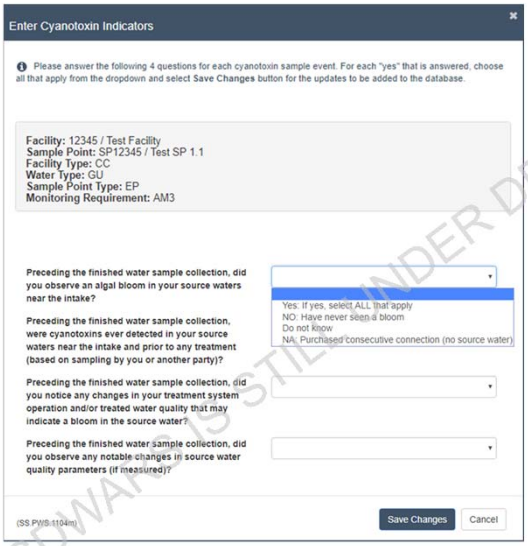

Step 7: Enter Data Elements
Enter Disinfectant Types
All of the disinfectants/oxidants that have been added prior to the entry point to the distribution system. Please choose all that apply from the dropdown and select Save Changes button for the updates to be added to the database.
Facility: 34431 / FacilityDS1
Sample Point: DS11 / SPDS11
Facility Type: DS
Water Type: GW
Sample Point Type: DS
Monitoring Requirement: AM2
Select all that apply
None selected
PEMB: Permanganate
HPXB: Hydrogen peroxide
CLGA: Gaseous chlorine
CLOF: Offsite Generated Hypochlorite (stored as a liquid form)
CLON: Onsite Generated Hypochlorite
CAGC: Chloramine (formed with gaseous chlorine)
CAOF: Chloramine (formed with offsite hypochlorite)
CAON: Chloramine (formed with onsite hypochlorite)
CLDB: Chlorine dioxide
OZON: Ozone
ULVL: Ultraviolet light
OTHD: Other types of disinfectant/oxidant
NODU: No disinfectant/oxidant used
(SS.PWS.1104b)
Enter Disinfectant Residuals
Disinfectant residual type in the distribution system for each HAA sample. Please select Save Changes button for the updates to be added to the database.
Facility: 34431 / FacilityDS1
Sample Point: DS11 / SPDS11
Facility Type: DS
Water Type: GW
Sample Point Type: DS
Monitoring Requirement: AM2
Select
CL2: Chlorine (i.e., originating from addition of free chlorine only)
CLO2: Chlorine dioxide
CLM: Chloramines (originating from the addition of chlorine and ammonia or pre-formed chloramines)
CAC: Chlorine and chloramines (if being mixed from chlorinated and chloroaminated water)
NOD: No disinfectant residual
(SS.PWS.1104c)
SDWARS IS STILL UNDER DEVELOPMENT
November 2017
U.S. Environmental Protection Agency
81


Step 7: Enter Data Elements
Enter Treatment Information
Treatment information associated with the sample point. Please choose all that apply from the dropdown and select Save Changes button for the updates to be added to the database.
Facility: 34431 / FacilityDS1
Sample Point: DS11 / SPDS11
Facility Type: DS
Water Type: GW
Sample Point Type: DS
Monitoring Requirement: AM2
Select all that apply
(SS.PWS.1104d)
CON: Conventional (non-softening, consisting of at least coagulation/sedimentation basins and filtration)
INF: In-line filtration
DFL: Direct filtration
SFN: Softening
SSF: Slow sand filtration
GAC: Granular activated carbon adsorption (not part of filters in CON, SFN, INF, DFL, or SSF)
POB: Pre-oxidation with chlorine (applied before coagulation for CON or SFN plants or before filtration for other filtration plants)
RBF: River bank filtration
PSD: Pre-sedimentation
BIO: Biological filtration (operated with an intention of maintaining biological activity within filter)
UTR: Unfiltered treatment for surface water source
GWD: Groundwater system with disinfection only
PAC: Application of powder activated carbon
AIR: Air stripping (packed towers, diffused gas contactors)
MFL: Membrane filtration
IEX: Ionic exchange
DAF: Dissolved air floatation
CWL: Clearwell/finished water storage without aeration
CWA: Clearwell/finished water storage with aeration
ADS: Aeration in distribution system (localized treatment)
OTH: Other types of treatment
NTU: No treatment used
DKN: Do not know
SDWARS IS STILL UNDER DEVELOPMENT
November 2017
U.S. Environmental Protection Agency
82

Step 7: Enter Data Elements



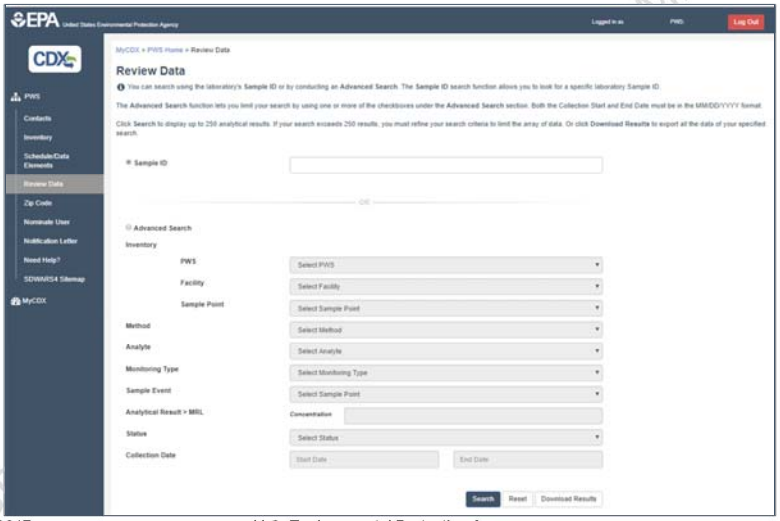
SDWARS IS STILL UNDER DEVELOPMENT



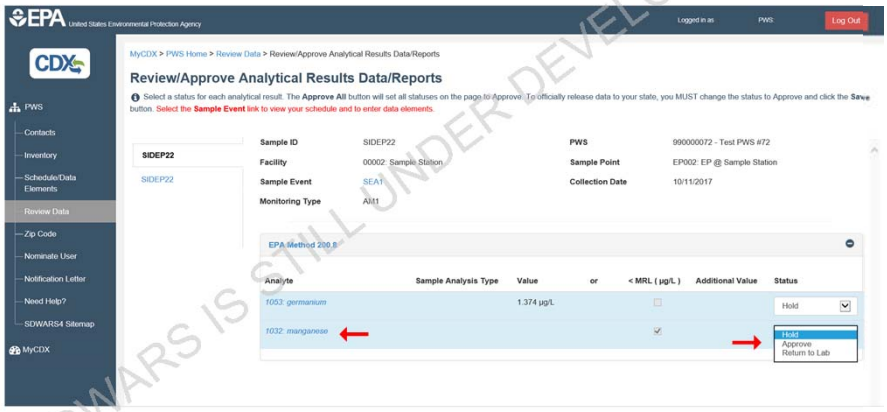
Step 7: Enter Data Elements

SDWARS IS STILL UNDER DEVELOPMENT

Step 8: Review Data

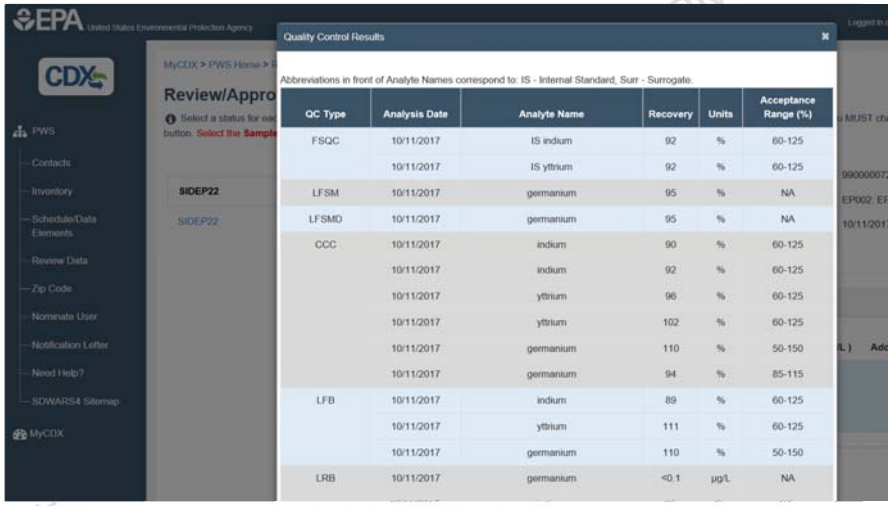


Step 8: Review Data



SDWARS IS STILL UNDER DEVELOPMENT

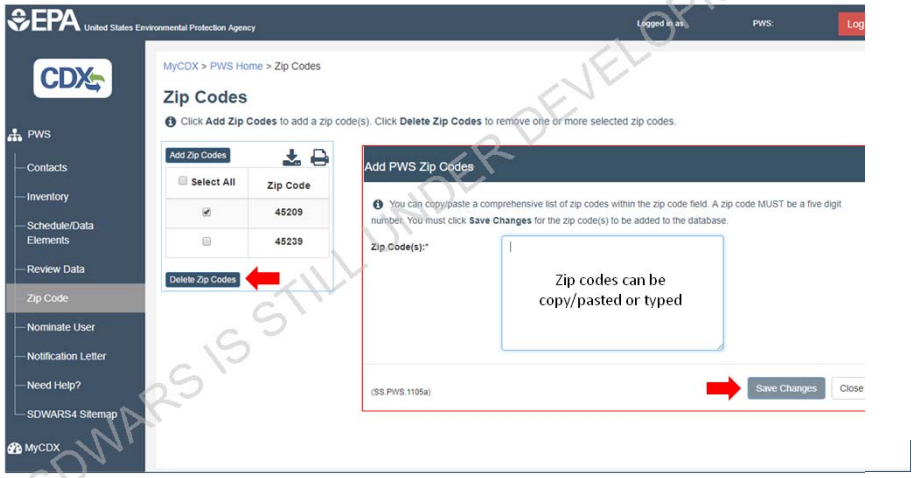
Step 8: Review Data



Sample Analysis Type Definitions

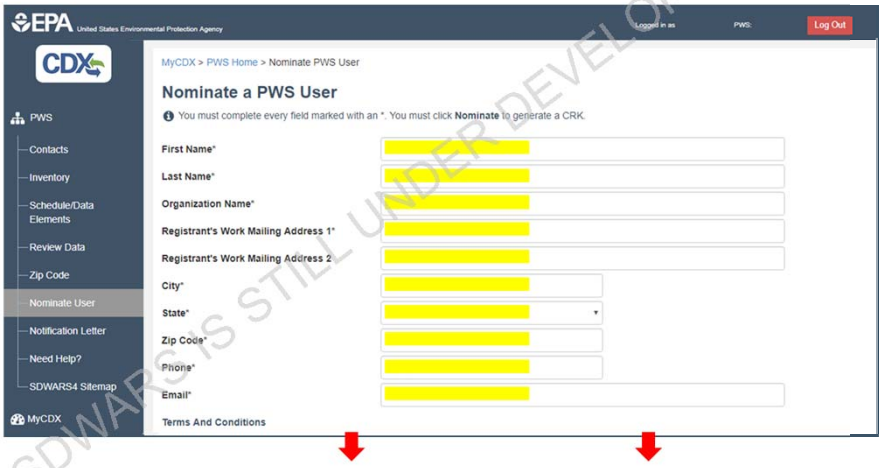
- **CCC** = continuing calibration check; a calibration standard containing the contaminant, the internal standard, and surrogate analyzed to verify the existing calibration for those contaminants.
- **QCFS** = field sample quality control; internal standards and/or surrogates in the field sample
- **LFB** = laboratory fortified blank; an aliquot of reagent water fortified with known quantities of the contaminants and all preservation compounds.
- **LRB** = laboratory reagent blank; an aliquot of reagent water treated exactly as a field sample, including the addition of preservatives, internal standards, and surrogates to determine if interferences are present in the laboratory, reagents, or other equipment.
- **LFSM** = laboratory fortified sample matrix; a UCMR field sample with a known amount of the contaminant of interest and all preservation compounds added.
- **LFSMD** = laboratory fortified sample matrix duplicate; duplicate of the laboratory fortified sample matrix.
- **QCS** = quality control sample; a sample prepared with a source external to the one used for initial calibration and CCC. The QCS is used to check calibration standard integrity.
- **QHS** = quality HAA; HAA sample collected and submitted for quality control purposes.
- **SUR** = surrogate standard; a standard that assesses method performance for each extraction.
- **IS** = internal standard; a standard that measures the relative response of contaminants.

Step 9: Add Zip Codes



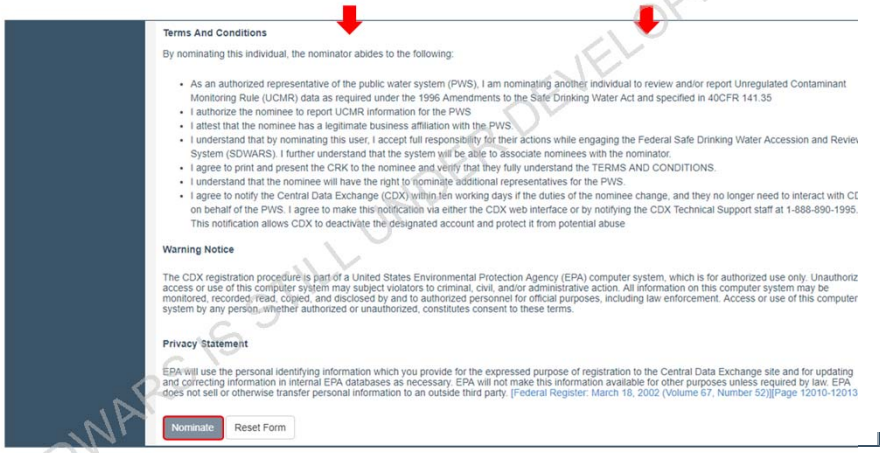
SDWARS IS STILL UNDER DEVELOPMENT

Step 10: Nominate User



SDWARS IS STILL UNDER DEVELOPMENT

Step 10: Nominate User



Terms And Conditions

By nominating this individual, the nominator abides to the following:

- As an authorized representative of the public water system (PWS), I am nominating another individual to review and/or report Unregulated Contaminant Monitoring Rule (UCMR) data as required under the 1996 Amendments to the Safe Drinking Water Act and specified in 40CFR 141.35
- I authorize the nominee to report UCMR information for the PWS
- I attest that the nominee has a legitimate business affiliation with the PWS
- I understand that by nominating this user, I accept full responsibility for their actions while engaging the Federal Safe Drinking Water Accession and Revie System (SDWARS). I further understand that the system will be able to associate nominees with the nominator.
- I agree to print and present the CRK to the nominee and verify that they fully understand the TERMS AND CONDITIONS.
- I understand that the nominee will have the right to nominate additional representatives for the PWS.
- I agree to notify the Central Data Exchange (CDX) within ten working days if the duties of the nominee change, and they no longer need to interact with CI on behalf of the PWS. I agree to make this notification via either the CDX web interface or by notifying the CDX Technical Support staff at 1-888-890-1995. This notification allows CDX to deactivate the designated account and protect it from potential abuse

Warning Notice

The CDX registration procedure is part of a United States Environmental Protection Agency (EPA) computer system, which is for authorized use only. Unauthoriz access or use of this computer system may subject violators to criminal, civil, and/or administrative action. All information on this computer system may be monitored, recorded, read, copied, and disclosed by and to authorized personnel for official purposes, including law enforcement. Access or use of this computer system by any person, whether authorized or unauthorized, constitutes consent to these terms.

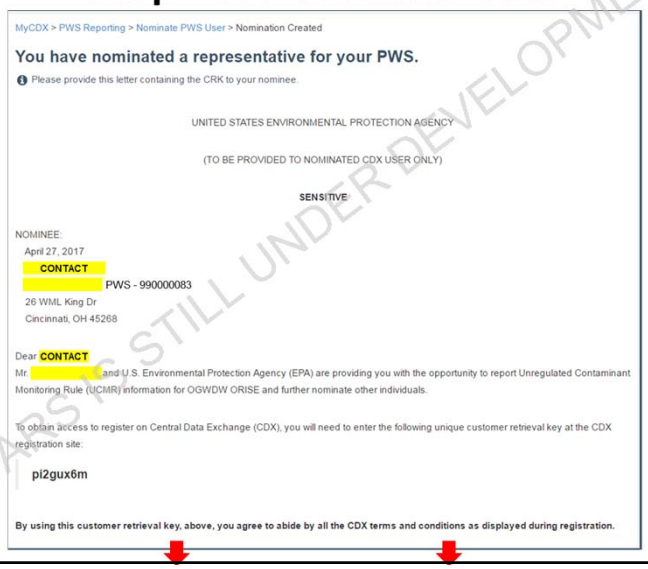
Privacy Statement

EPA will use the personal identifying information which you provide for the expressed purpose of registration to the Central Data Exchange site and for updating and correcting information in internal EPA databases as necessary. EPA will not make this information available for other purposes unless required by law. EPA does not sell or otherwise transfer personal information to an outside third party. [Federal Register: March 18, 2002 (Volume 67, Number 52)][Page 12010-12013

Nominate | Reset Form

SDWARS IS STILL UNDER DEVELOPMENT

Step 10: Nominate User



MyCDX > PWS Reporting > Nominate PWS User > Nomination Created

You have nominated a representative for your PWS.

Please provide this letter containing the CRK to your nominee.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

(TO BE PROVIDED TO NOMINATED CDX USER ONLY)

SENSITIVE

NOMINEE:
April 27, 2017
CONTACT
PWS - 990000083
26 WML King Dr
Cincinnati, OH 45268

Dear CONTACT
Mr. and U.S. Environmental Protection Agency (EPA) are providing you with the opportunity to report Unregulated Contaminant Monitoring Rule (UCMR) information for OGWDW ORISE and further nominate other individuals.

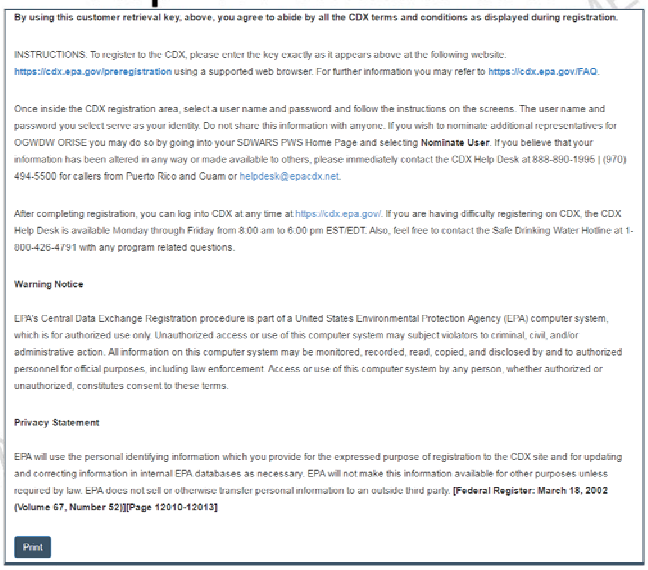
To obtain access to register on Central Data Exchange (CDX), you will need to enter the following unique customer retrieval key at the CDX registration site:

pi2gux6m

By using this customer retrieval key, above, you agree to abide by all the CDX terms and conditions as displayed during registration.

SDWARS IS STILL UNDER DEVELOPMENT

Step 10: Nominate User



By using this customer retrieval key, above, you agree to abide by all the CDX terms and conditions as displayed during registration.

INSTRUCTIONS: To register to the CDX, please enter the key exactly as it appears above at the following website: https://cdx.epa.gov/preregistration using a supported web browser. For further information you may refer to https://cdx.epa.gov/FAQ.

Once inside the CDX registration area, select a user name and password and follow the instructions on the screens. The user name and password you select serve as your identity. Do not share this information with anyone. If you wish to nominate additional representatives for OGWDW ORISE you may do so by going into your SDWARS PWS Home Page and selecting **Nominate User**. If you believe that your information has been altered in any way or made available to others, please immediately contact the CDX Help Desk at 888-890-1995 | (970) 494-5500 for callers from Puerto Rico and Guam or helpdesk@epacdx.net.

After completing registration, you can log into CDX at any time at https://cdx.epa.gov/. If you are having difficulty registering on CDX, the CDX Help Desk is available Monday through Friday from 8:00 am to 6:00 pm EST/EDT. Also, feel free to contact the Safe Drinking Water Hotline at 1-800-426-4791 with any program related questions.

Warning Notice

EPA's Central Data Exchange Registration procedure is part of a United States Environmental Protection Agency (EPA) computer system, which is for authorized use only. Unauthorized access or use of this computer system may subject violators to criminal, civil, and/or administrative action. All information on this computer system may be monitored, recorded, read, copied, and disclosed by and to authorized personnel for official purposes, including law enforcement. Access or use of this computer system by any person, whether authorized or unauthorized, constitutes consent to these terms.

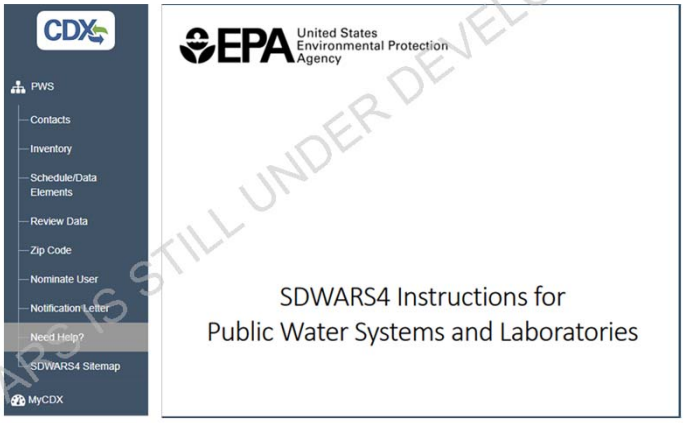
Privacy Statement

EPA will use the personal identifying information which you provide for the expressed purpose of registration to the CDX site and for updating and correcting information in internal EPA databases as necessary. EPA will not make this information available for other purposes unless required by law. EPA does not sell or otherwise transfer personal information to an outside third party. **[Federal Register: March 18, 2002 (Volume 67, Number 52)][Page 12010-12013]**

Print

SDWARS IS STILL UNDER DEVELOPMENT

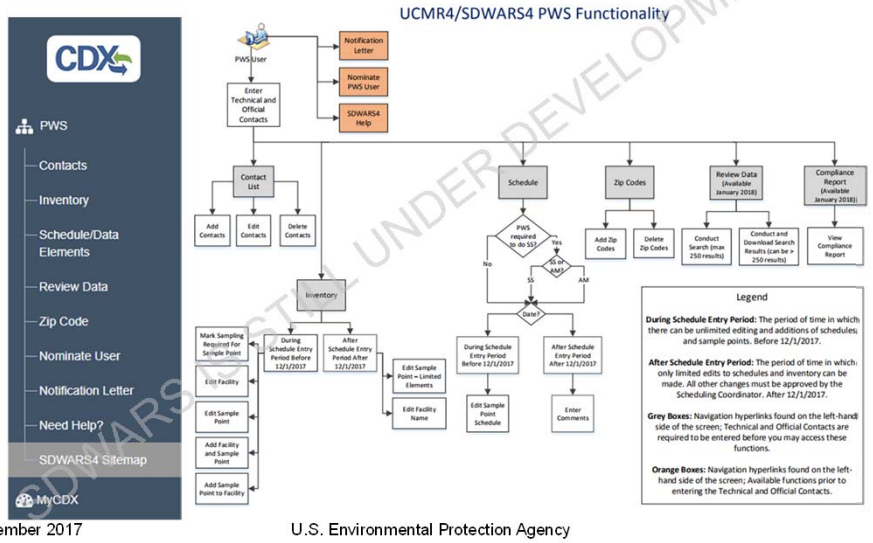
Need Help?



https://www.epa.gov/sites/production/files/2017-07/documents/sdwars4-instructions.pdf

SDWARS IS STILL UNDER DEVELOPMENT

SDWARS Sitemap



SDWARS – STILL UNDER DEVELOPMENT

SDWARS Large Systems Workflow: Review

- **Step 1: Log in to CDX and select SDWARS4**
  - This will automatically open your systems notification letter
- **Step 2: Read and accept the Notification Letter**
  - It can be printed and viewed at any time
- **Step 3: Add PWS contacts**
  - Error in red will indicate that you need to add official and technical contacts
  - Check boxes to receive SDWARS notifications
- **Step 4: Add inventory, once both contacts are in the system**
  - Manually type in, bulk upload, import from SDWARS3
  - Add D/DBPR distribution and source water locations
  - Use filter to search through multiple entries
- **Step 5: Review/Edit inventory**
  - Option of editing Facilities/Sample Points by clicking on Facility ID or Sample Point ID

SDWARS Large Systems Workflow: Review

- **Step 6: Review sampling schedules**
  - Changing a SE month or year will automatically update subsequent SEs prior to 12/31/17
- **Step 7: Enter data elements**
  - You can input responses to the required data elements at time of collection
- **Step 8: Review sample result data**
  - Review and accept field sample results
  - View QC associated with field sample results
- **Step 9: Add zip codes**
  - Type zip codes or copy and paste
- **Step 10: Nominate a user for your PWS (optional)**
  - Read the terms and conditions, and provide CRK to nominee

Remember

- All notifications and nominations can be printed into PDF and saved for your records
- Every page with data has a download and print icon on the top right

Large and small water systems must log into SDWARS. This is our main way of communicating with water systems regarding deadlines, inventory changes/corrections, sampling reminders, availability of analytical results etc.

Break

10 Minutes

Reporting Requirements and Data Elements

Jillian Toothman, USEPA

Overview

- Large System Reporting
  - Inventory
  - Schedule
  - Results
- Small System Reporting
  - Inventory
  - Results
- Data Elements
- Timing of Reporting Results

Large System Reporting: Inventory

Large systems where State does **NOT** provide inventory	• Enter inventory via SDWARS by December 31, 2017 • Changes after December 31, 2017 must be submitted in writing and approved by EPA's Sampling Coordinator: UCMR_Sampling_Coordinator@epa.gov – Must provide a reason for the change
Large systems where State provides inventory	• Partnered States will provide LSI to EPA • States generally contact PWS about this approach • SDWARS notification sent to system when LSI was received by EPA – Only those who have a SDWARS account (used their CRK) received the notification

Large System Reporting: Schedule

- To change the schedule:
  - Before December 31, 2017 - enter via SDWARS and make any changes
  - After December 31, 2017
    - Contact EPA in writing to request change
    - Provide a basis for change(s) including:
      - Update to most vulnerable months for cyanotoxin monitoring
      - Sync with compliance monitoring for the UCMR 4 HAA monitoring
      - Budget/planning considerations
      - Other
    - UCMR_Sampling_Coordinator@epa.gov

Large System Reporting: Results

- Sample Location Information
  - PWSs must input all data elements specified in §141.35(e) Table 1 (e.g., disinfectant type, treatment information and disinfectant residual) into SDWARS
  - PWSs can input their data elements into SDWARS at time of collection
- Monitoring Results
  - Entered by UCMR 4 approved laboratory to SDWARS
  - Reviewed and submitted by PWS (default approval after 60 days)

Small System Reporting: Inventory

Small systems where State does **NOT** provide inventory	• Provide the most up-to-date contact and inventory information on the MRS • Return MRS to GLEC ASAP as the due dates have passed • Contact GLEC for assistance in filling out the MRS or for questions: (800) 949-1581 or UCMR4@glec.com
Small systems where State provides inventory	• GLEC will not send you an MRS • State will provide your inventory information to EPA as SSI
EPA Contractor Great Lakes Environmental Center (GLEC)	• Send MRSs to systems where State does not provide inventory • Input the data into SDWARS (e.g., inventory, zip codes and schedule) • Send small PWSs the supplies necessary for the sample collection

Small System Reporting

- Why is using your CRK to log in to SDWARS4 so important for small systems?
  - Review and accept Notification Letter
  - View sampling locations
  - View schedule
  - **MOST IMPORTANTLY**
    - Review your analytical results for your consumer confidence reports, and provides critical communication reminders and notifications.

Small System Reporting: Results

- Sample Location Information
  - PWSs must report all data elements specified in §141.35(e) Table 1 on each sample tracking form (STF), located within each sampling kit sent by GLEC, as appropriate (e.g., disinfectant type, treatment information and disinfectant residual)
- Your Monitoring Results
  - Entered by EPA-contracted laboratory into SDWARS
  - Monitoring results from contracted laboratory reviewed by EPA
  - Viewed by PWS in SDWARS
    - You will receive an email notification from SDWARS when results are available
    - Contact EPA if there are any concerns with the data

Large and Small Systems – Reporting Data Elements §141.35(e)

1. Public Water System Identification (PWSID) Code	16. Analytical Method Code
2. Public Water System Name	17. Extraction Batch Identification Code
3. Public Water System Facility Identification Code	18. Extraction Date
4. Public Water System Facility Name	19. Analysis Batch Identification Code
5. Public Water System Facility Type	20. Analysis Date
6. Water Source Type	21. Sample Analysis Type (more details)
7. Sampling Point Identification Code	22. Analytical Results—Sign
8. Sampling Point Name	23. Analytical Result—Measured Value
9. Sampling Point Type Code	24. Additional Value
10. Disinfectant Type (more details)	25. Laboratory Identification Code
11. Treatment Information (more details)	26. Sample Event Code
12. Disinfectant Residual Type	27. Bloom Occurrence
13. Sample Collection Date	28. Cyanotoxin Occurrence
14. Sample Identification Code	29. Indicator of Possible Bloom - Treatment
15. Contaminant	30. Indicator of Possible Boom – Source Water Quality Parameters

Disinfectant Type – Data Element 10

All of the disinfectants/oxidants that have been added prior to the entry point to the distribution system. Please select all that apply.

- **PEMB** = Permanganate
- **HPXB** = Hydrogen peroxide
- **CLGA** = Gaseous chlorine
- **CLOF** = Offsite Generated Hypochlorite (stored as a liquid form)
- **CLON** = Onsite Generated Hypochlorite
- **CAGC** = Chloramine (formed with gaseous chlorine)
- **CAOF** = Chloramine (formed with offsite hypochlorite)
- **CAON** = Chloramine (formed with onsite hypochlorite)
- **CLDB** = Chlorine dioxide
- **OZON** = Ozone
- **ULVL** = Ultraviolet light
- **OTHD** = Other types of disinfectant/oxidant
- **NODU** = No disinfectant/oxidant used

Treatment Information – Data Element 11

Treatment information associated with the sample point. Please select all that apply.

- **CON** = Conventional (non-softening, consisting of at least coagulation/sedimentation basins and filtration)
- **INF** = In-line filtration
- **DFL** = Direct filtration
- **SFN** = Softening
- **SSF** = Slow sand filtration
- **GAC** = Granular activated carbon adsorption (not part of filters in CON, SFN, INF, DFL, or SSF)
- **POB** = Pre-oxidation with chlorine (applied before coagulation for CON or SFN plants or before filtration for other filtration plants)
- **RBF** = River bank filtration
- **PSD** = Pre-sedimentation
- **BIO** = Biological filtration (operated with an intention of maintaining biological activity within filter)
- **UTR** = Unfiltered treatment for surface water source
- **GWD** = Groundwater system with disinfection only
- **PAC** = Application of powder activated carbon
- **AIR** = Air stripping (packed towers, diffused gas contactors)
- **MFL** = Membrane filtration
- **IEX** = Ionic exchange
- **DAF** = Dissolved air floatation
- **CWL** = Clearwell/finished water storage without aeration
- **CWA** = Clearwell/finished water storage with aeration
- **ADS** = Aeration in distribution system (localized treatment)
- **OTH** = Other types of treatment
- **NTU** = No treatment used
- **DKN** = Do not know

Disinfectant Residual Type – Data Element 12

Disinfectant residual type in the distribution system for each HAA sample.

- **CL2** = Chlorine (i.e., originating from addition of free chlorine only)
- **CLO2** = Chlorine dioxide
- **CLM** = Chloramines (originating from the addition of chlorine and ammonia or pre-formed chloramines)
- **CAC** = Chlorine and chloramines (if being mixed from chlorinated and chloroaminated water)
- **NOD** = No disinfectant residual

Bloom Occurrence – Data Element 27

A yes or no answer provided by the PWS for each cyanotoxin sample event.

Question: Preceding the finished water sample collection, did you observe an algal bloom in your source waters near the intake?

- **YES =** if yes, select ALL that apply:
  - **YD** = yes, on the day the UCMR cyanotoxin sample was collected
  - **YW** = yes, between the day the sample was taken and the past week
  - **YM** = yes, between the past week and past month
  - **YY** = yes, between the past month and past 12 months
  - **YP** = yes, more than a year ago
- **NO** = have never seen a bloom
- **DK** = do not know
- **NA** = purchased consecutive connection (no source water)

Cyanotoxin Occurrence – Data Element 28

A yes or no answer provided by the PWS for each cyanotoxin sample event.

Question: Preceding the finished water sample collection, were cyanotoxins ever detected in your source waters near the intake and prior to any treatment (based on sampling by you or another party)?

- **YES** = if yes, select ALL that apply:
  - **YD** = yes, on the day the UCMR cyanotoxin sample was collected
  - **YW** = yes, between the day the sample was taken and the past week
  - **YM** = yes, between the past week and past month
  - **YY** = yes, between the past month and past 12 months
  - **YP** = yes, more than a year ago
- **NO** = have never detected cyanotoxins in source water
- **NS** = unaware of any source water cyanotoxin sampling

- Select ALL that apply (i.e., all that were detected) if you answered YES to detecting cyanotoxins in source water:
  - **MIC** = Microcystins
  - **CYL** = Cylindrospermopsin
  - **ANA** = Anatoxin-A
  - **SAX** = Saxitoxins
  - **OTH** = Other
  - **DK** = do not know

Indicator of Possible Bloom – Treatment Data Element 29

A yes or no answer provided by the PWS for each cyanotoxin sample event.

Question: Preceding the finished water sample collection, did you notice any changes in your treatment system operation and/or treated water quality that may indicate a bloom in the source water?

- **YES =** if yes, select ALL that apply:
  - **DFR** = Decrease in filter runtimes
  - **ITF** = Increase in turbidity in filtered water
  - **ICD** = Need for increased coagulant dose
  - **TOI** = Increase in taste and odor issues in finished water
  - **IOD** = Need for increase in oxidant/disinfectant dose
  - **IDB** = Increase in TTHM/HAA5 in finished water
  - **OTH** = Describe other changes
- **NO** = no changes observed
- **DK** = do not know

Indicator of Possible Bloom – Source Water Quality Parameters – Data Element 30

A yes or no answer provided by the PWS for each cyanotoxin sample event.

Question: Preceding the finished water sample collection, did you observe any notable changes in source water quality parameters (if measured)?

- **YES =** if yes, select ALL that apply to the source water:
  - **ITP** = Increase in water temperature
  - **ITU** = Increase in turbidity
  - **IAL** = Increase in alkalinity
  - **ITO** = Increase in total organic carbon
  - **ICD** = Increase in chlorine demand
  - **IPH** = Increase in pH and/or **DPH =** Decrease in pH
  - **ICA** = Increase in chlorophyll a
  - **IPY** = Increase in phycocyanin
  - **INU** = Increase in nutrients (example: nitrogen or phosphorus)
  - **OTH** = Describe other changes
- **NO** = no changes observed
- **DK** = do not know

Timing of Reporting Results

- Large systems
  - Laboratory posts results to SDWARS within 120 days of sample collection
  - Systems review, approve and submit to State and EPA within 60 days of laboratory's post
- Small systems
  - EPA will still manage laboratory contracts for small water systems
  - Contracted laboratory posts results to SDWARS per the requirements of the contract (within 60 days of sample collection)
  - EPA will review and pay for the data submitted by the contracted laboratory
  - Systems access their data in SDWARS

SDWARS4 Development

- File formats for laboratories will be made available
  - Text files
  - XML
- Training
  - Webinar for laboratories
  - Webinar for water systems
- Laboratory beta-testing of SDWARS4
  - Improvements to user interface
  - Practice uploading data

Risk Communication

Brenda Parris, USEPA

Overview

- Reference Concentrations
- Consumer Confidence Reports
- Public Notification requirements

Risk Communication

- UCMR reference concentrations are compiled from publically available EPA sources
- Review the supporting documentation referenced in the UCMR Data Summary (updated quarterly)
  - Examples of secondary sources
    - Drinking Water Standards and Health Advisories
    - CCL 4 Contaminant Information Sheets
    - Human Health Benchmark for Pesticides (HHBPs)
  - Examples of sources where you can find additional information on the critical study, other health effects, chemical properties, sources, exposure etc.
    - Integrated Risk Information System (IRIS)
    - Office of Pesticides Program (OPP)
    - Office of Water – Drinking Water Contaminant Human Health Information
    - Agency for Toxic Substances & Disease Registry (ATSDR)
- UCMR 4 Compendium

Risk Communication

- The reference concentration:
  - Does not represent an "action level" (EPA requires no particular action based simply on the fact that UCMR monitoring results exceed draft reference concentrations)
  - Should not be interpreted as any indication of Agency intent to establish a future drinking water regulation at this or any other level
- Decisions whether or not to regulate the contaminant in drinking water will continue to be made following the Agency's Regulatory Determination process

Risk Communication

- The intent of the UCMR reference concentrations is to provide, where possible, context around the detection of a particular UCMR contaminant above the MRL
- EPA will continue to look for ways to improve the UCMR Data Summary to make sure we are connecting you to the most appropriate information and messaging materials
- Follow State, Consumer Confidence Report and Public Notification requirements

Public Access to UCMR Results

- UCMR results can be viewed by the public:
  - At https://www.epa.gov/dwucmr
  - In annual Consumer Confidence Reports (CCRs)
    - Required by §141.153(d)(7) Community water systems (CWSs)
      - **Unregulated contaminants detected during UCMR monitoring** must be reported in a CWS's CCR following the year they were received. For additional information see 40 CFR Subpart O and https://www.epa.gov/ccr.
      - **Detected unregulated contaminants**, for which monitoring is required (except *Cryptosporidium*), the table(s) must contain the average and range at which the contaminant was detected. The report may include a brief explanation of why the CWS is monitoring for unregulated contaminants and this explanation can provide context for reference concentrations.
      - **TOC and bromide** are not UCMR 4 contaminants (only indicators) (40 CFR 141.40(a)(3) table 1 footnote e), and are not required to be reported on a CCR (40 CFR 141.35(b)(1)).

Public Access to UCMR Results: CCR

- Recommend that the UCMR 4 results (including UCMR 4 HAA6 Br and HAA9 results) be reported in the CCR in a section separate from the compliance-monitoring results for regulated contaminants.
- Since CCR requirements for UCMR apply to detection of *unregulated* contaminants, and since HAA5 is regulated, UCMR 4 HAA5 results do not need to be reported on CCR.
- If the UCMR 4 HAA5 monitoring is scheduled to coincide with the D/DBPR HAA5 compliance monitoring (i.e., if the monitoring serves both purposes), those results would be reported on the CCR as D/DBPR data.

Example CCR Language

Unregulated contaminants are those, for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Preparing Your Drinking Water Consumer Confidence Report Guidance for Water Suppliers: "Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future." EPA is exploring possibilities for clearer risk communication.

Public Access to UCMR Results

- In Public Notification
  - Required by §141.207 for CWS and NTNCWS
  - PWSs must notify persons served of the availability of the results no later than 12-months after monitoring results are known
  - Follows Tier 3 public notice §141.204(c), (d)(1) and (d)(3)
    - Special requirement– notice must identify a person and the telephone number to contact for information on monitoring results
  - CWSs may include their public notice within their CCRs
  - For additional information: https://www.epa.gov/dwreginfo/public-notification-rule

Closing Remarks

Brenda Parris, USEPA

Webinar Participant Questions

- Click on "+" next to "Questions" in the control panel (Figure 1) to submit questions/comments
  - You may need to unhide the control panel to ask a question (Figure 2)
- Type a question in the box; click send (Figure 3)

Figure 1

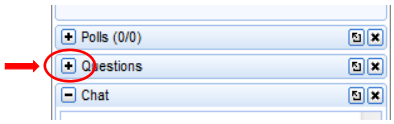


Figure 2

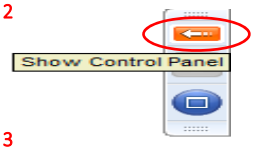
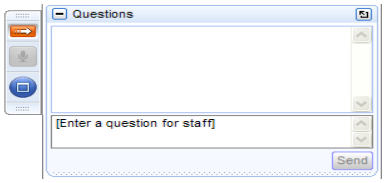


Figure 3



If You Have Questions Following This Webinar

- UCMR Homepage:
  - https://www.epa.gov/dwucmr
- UCMR 4:
  - https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule
  - Go to UCMR 4 Docket (EPA-HQ-OW-2015-0218) at http://www.regulations.gov for federal register notice and supporting documents
- Occurrence Data:
  - https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule

UCMR Contacts

- UCMR Questions/SDWARS Data Entry?
  - UCMR Message Center: (800) 949-1581
  - UCMR4@glec.com
  - UCMR_Sampling_Coordinator@epa.gov
- CDX Help?
  - SDWARS registration and technical issues
  - Provide details and screen shots
    - CDX Help Desk: (888) 890-1995
    - helpdesk@epacdx.net
- Lab Approval Program:
  - UCMR_Lab_Approval@epa.gov
- Safe Drinking Water Questions?
  - Safe Drinking Water Hotline: (800) 426-4791

Questions and Discussion

Abbreviations and Acronyms

- **CCC** – Continuing Calibration Check
- **CCL** – Contaminant Candidate List
- **CCR** – Consumer Confidence Report
- **CDX** – Central Data Exchange
- **CF** – Concentration Fortified
- **CFR** – Code of Federal Regulations
- **CWS** – Community Water System
- **CRKs** – Customer Retrieval Keys
- **D/DBPRs** – Disinfectants and Disinfection Byproduct Rules (including Stage 1 and Stage 2 D/DBPRs)
- **DS** – Distribution System

Abbreviations and Acronyms

- **ELISA** – Enzyme-linked Immunosorbent Assay
- **EPA** – Environmental Protection Agency
- **(EP)TDS** – Entry Point to Distribution System
- **FR** – Federal Register
- **FS** – Field Sample
- **GC** – Gas Chromatography
- **GC-ECD** – Gas Chromatography with Electron Capture Detection
- **GC/MS** – Gas Chromatography/Mass Spectrometry
- **GLEC** – (Contractor) Great Lakes Environmental Center
- **GW** – Ground Water

Abbreviations and Acronyms

- **GWRMPs** – Ground Water Representative Monitoring Plans
- **GWUDI** – Ground Water Under the Direct Influence of Surface Water
- **HAAs** – haloacetic acids
- **HAA5** –dichloroacetic acid, monochloroacetic acid, tribromoacetic acid, monobromoacetic acid, dibromoacetic acid
- **HAA6Br** - monobromoacetic acid, dibromoacetic acid, bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, tribromoacetic acid
- **HAA9** – dichloroacetic acid, monochloroacetic acid, trichloroacetic acid, monobromoacetic acid, dibromoacetic acid, bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, tribromoacetic acid

Abbreviations and Acronyms

- **ICR** – Information Collection Request
- **IC-ESI-MS/MS** – Ion Chromatography Electrospray Ionization Tandem Mass Spectrometry
- **ICP/MS –** Inductively Coupled Plasma-Mass Spectrometry
- **IDC** – Initial Demonstration of Capability
- **IS** – Internal Standard
- **LC/ESI-MS/MS** – Liquid Chromatography/Electrospray Ionization/Tandem Mass Spectroscopy
- **LC-MS/MS** – Liquid Chromatography/Tandem Mass Spectrometry

Abbreviations and Acronyms

- **LFB** – Laboratory Fortified Blank
- **LFSM** – Laboratory Fortified Sample Matrix
- **LRB** – Laboratory Reagent Blank
- **LSI** – Large System Inventory
- **LT2 (LT2ESWTR)** – Long Term 2 Enhanced Surface Water Treatment Rule
- **MCLG** – Maximum Contaminant Level Goal
- **MRL** – Minimum Reporting Level
- **MRS** – Monitoring Review Sheet
- **NCOD** – National Contaminant Occurrence Database
- **NPDWRs** – National Primary Drinking Water Regulations

Abbreviations and Acronyms

- **NTNCWS** – Non-transient Non-community Water System
- **PA** – Partnership Agreement
- **PN** – Public Notice
- **PT** – Proficiency Testing
- **PWS** – Public Water System
- **PWSID** – Public Water System Identification
- **QA** – Quality Assurance
- **QC** – Quality Control
- **QCS** – Quality Control Sample
- **QHS** – Quality HAA Sample

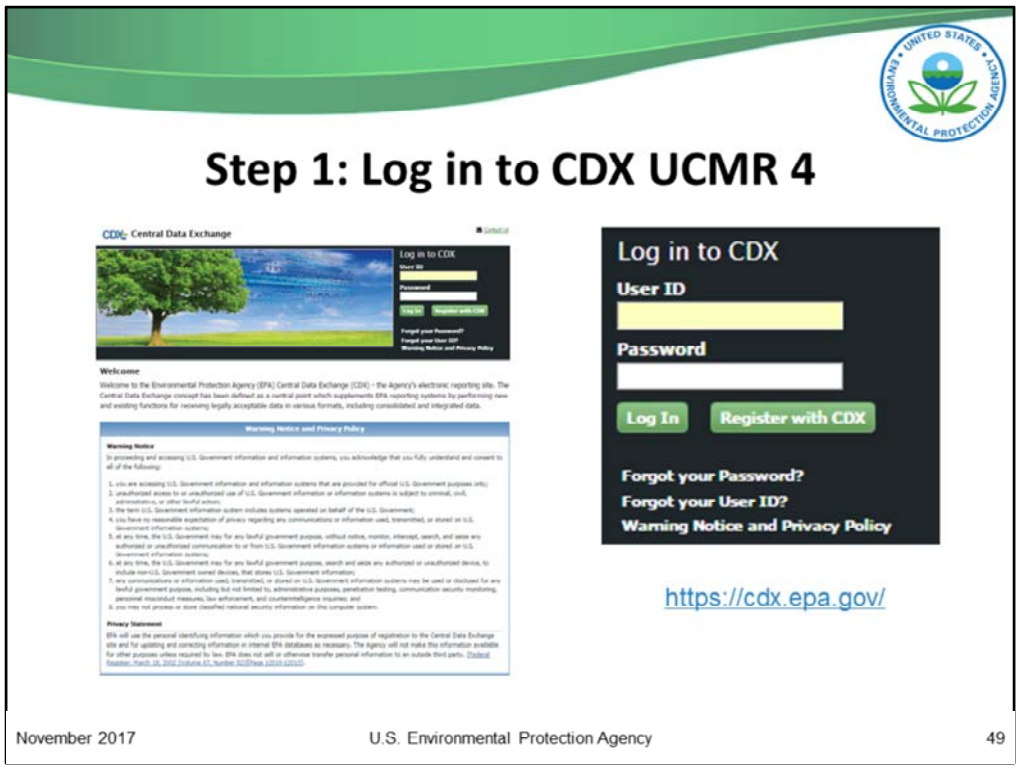
Abbreviations and Acronyms

- **SDWA** – Safe Drinking Water Act
- **SDWARS** – Safe Drinking Water Accession and Review System
- **SE** – Sample Event
- **SM** – Standard Methods for the Examination of Water and Wastewater
- **SMP** – State Monitoring Plan
- **SPE** – Solid Phase Extraction Phase
- **SR** – Source water

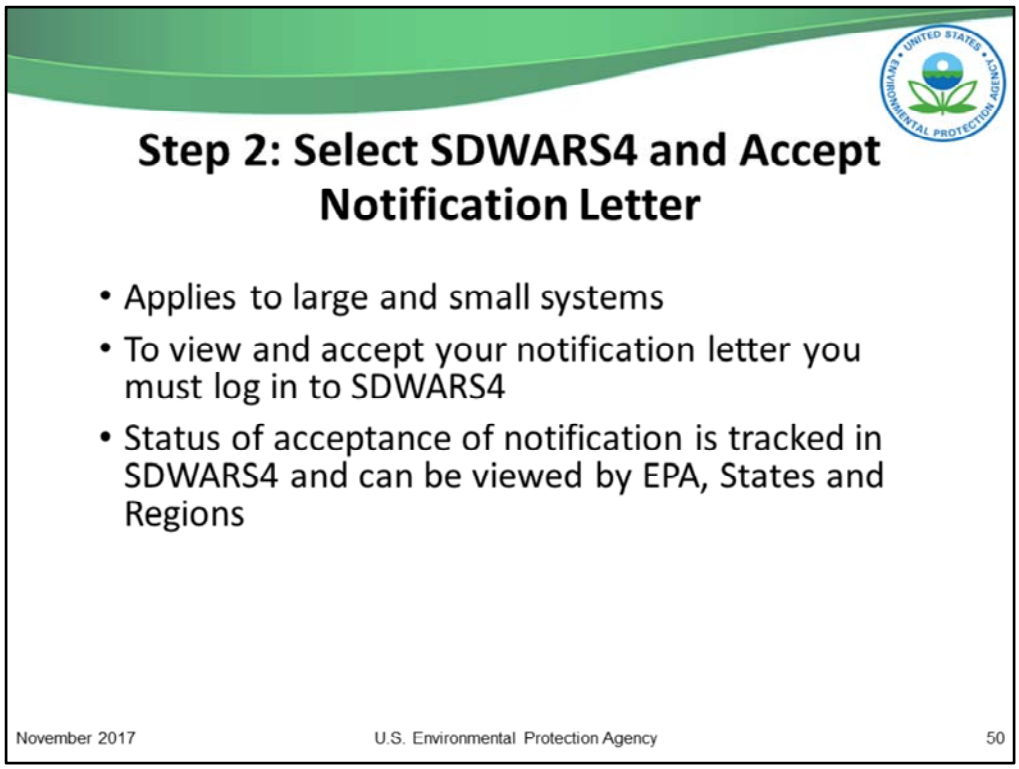
Abbreviations and Acronyms

- **SSI** – Small System Inventory
- **STF** – Sample Tracking Form
- **SUR** – Surrogate Standard
- **SW** – Surface Water
- **SWP** – Surface Water Purchased
- **TNCWS** – Transient Non-community Water System
- **TTHM** – Trihalomethanes
- **TOC** – Total Organic Carbon
- **UCMR** – Unregulated Contaminant Monitoring Rule

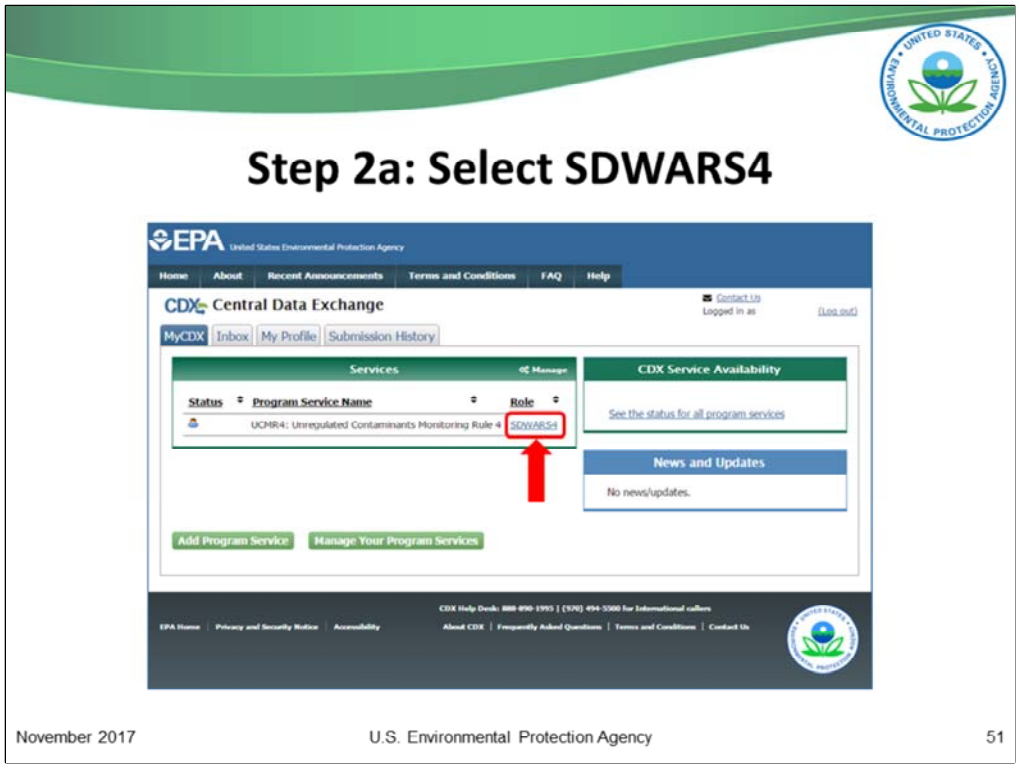
Appendix A:
SDWARS for PWSs (UCMR 4): Functions in SDWARS Presentation



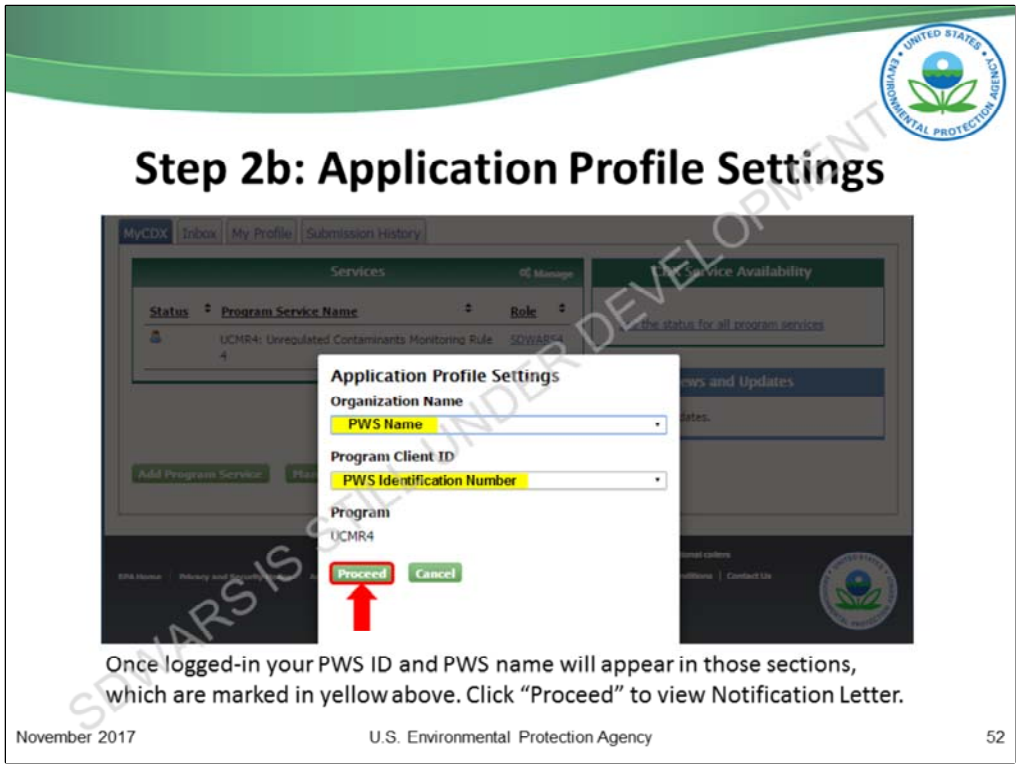
Step 1: Log in to CDX UCMR 4. Log in to CDX using your **User ID** and **Password** that you created during registration. Select the **Log In** button. There are also options to help you retrieve your **Password** or **User ID** if you have forgotten them. If you are having trouble logging in or have locked yourself out after too many erroneous login attempts the screen will prompt you to contact the CDX help desk.



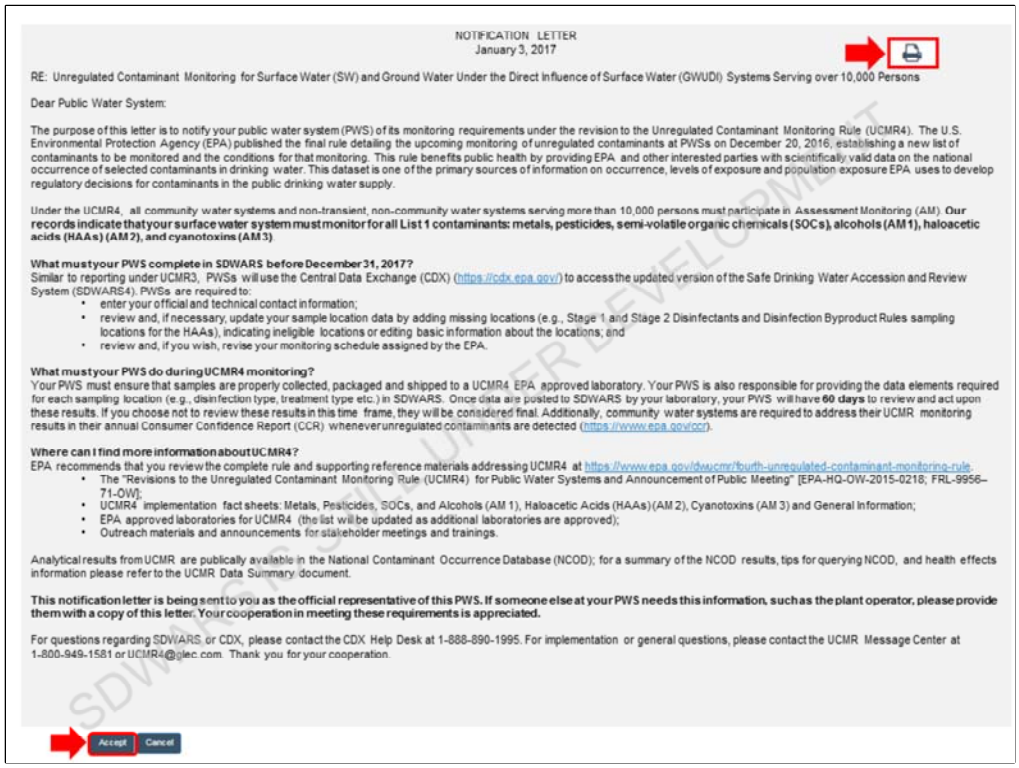
Intentionally Left Blank



After logging into CDX select **SDWARS4** (noted here by the red arrow and box).



Next your application profile settings will pop-up. You should see your Public Water System (PWS) name and Public Water System Identification (PWS ID) in the sections highlighted in yellow. Click the **Proceed** button.



NOTIFICATION LETTER
January 3, 2017

RE: Unregulated Contaminant Monitoring for Surface Water (SW) and Ground Water Under the Direct Influence of Surface Water (GWUDI) Systems Serving over 10,000 Persons

Dear Public Water System:

The purpose of this letter is to notify your public water system (PWS) of its monitoring requirements under the revision to the Unregulated Contaminant Monitoring Rule (UCMR4). The U.S. Environmental Protection Agency (EPA) published the final rule detailing the upcoming monitoring of unregulated contaminants at PWSs on December 20, 2016, establishing a new list of contaminants to be monitored and the conditions for that monitoring. This rule benefits public health by providing EPA and other interested parties with scientifically valid data on the national occurrence of selected contaminants in drinking water. This dataset is one of the primary sources of information on occurrence, levels of exposure and population exposure EPA uses to develop regulatory decisions for contaminants in the public drinking water supply.

Under the UCMR4, all community water systems and non-transient, non-community water systems serving more than 10,000 persons must participate in Assessment Monitoring (AM). **Our records indicate that your surface water system must monitor for all List 1 contaminants: metals, pesticides, semi-volatile organic chemicals (SOCs), alcohols (AM1), haloacetic acids (HAAs) (AM2), and cyanotoxins (AM3)**

What must your PWS complete in SDWARS before December 31, 2017?
Similar to reporting under UCMR3, PWSs will use the Central Data Exchange (CDX) (https://cdx.epa.gov/) to access the updated version of the Safe Drinking Water Accession and Review System (SDWARS4). PWSs are required to:

- enter your official and technical contact information;
- review and, if necessary, update your sample location data by adding missing locations (e.g., Stage 1 and Stage 2 Disinfectants and Disinfection Byproduct Rules sampling locations for the HAAs), indicating ineligible locations or editing basic information about the locations; and
- review and, if you wish, revise your monitoring schedule assigned by the EPA.

What must your PWS do during UCMR4 monitoring?
Your PWS must ensure that samples are properly collected, packaged and shipped to a UCMR4 EPA approved laboratory. Your PWS is also responsible for providing the data elements required for each sampling location (e.g., disinfection type, treatment type etc.) in SDWARS. Once data are posted to SDWARS by your laboratory, your PWS will have **60 days** to review and act upon these results. If you choose not to review these results in this time frame, they will be considered final. Additionally, community water systems are required to address their UCMR monitoring results in their annual Consumer Confidence Report (CCR) whenever unregulated contaminants are detected (https://www.epa.gov/ccr).

Where can I find more information about UCMR4?
EPA recommends that you review the complete rule and supporting reference materials addressing UCMR4 at https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule.

- The "Revisions to the Unregulated Contaminant Monitoring Rule (UCMR4) for Public Water Systems and Announcement of Public Meeting" [EPA-HQ-OW-2015-0218; FRL-9956–71-OW];
- UCMR4 implementation fact sheets: Metals, Pesticides, SOCs, and Alcohols (AM 1), Haloacetic Acids (HAAs) (AM 2), Cyanotoxins (AM 3) and General Information;
- EPA approved laboratories for UCMR4 (the list will be updated as additional laboratories are approved);
- Outreach materials and announcements for stakeholder meetings and trainings.

Analytical results from UCMR are publically available in the National Contaminant Occurrence Database (NCOD); for a summary of the NCOD results, tips for querying NCOD, and health effects information please refer to the UCMR Data Summary document.

This notification letter is being sent to you as the official representative of this PWS. If someone else at your PWS needs this information, such as the plant operator, please provide them with a copy of this letter. Your cooperation in meeting these requirements is appreciated.

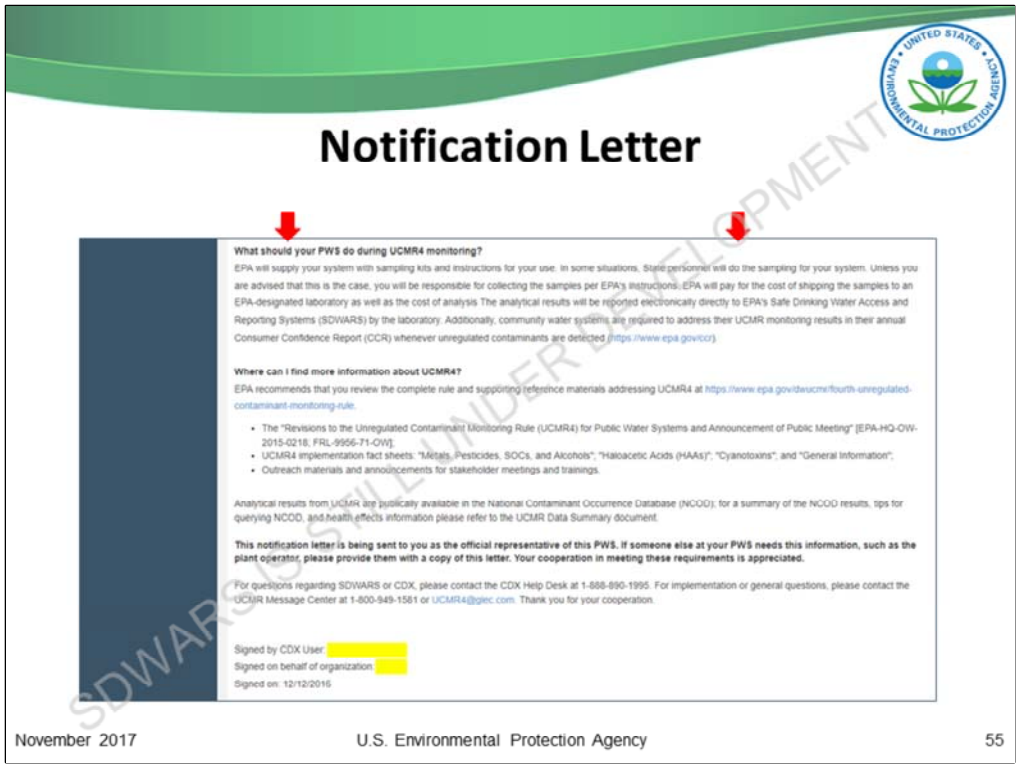
For questions regarding SDWARS or CDX, please contact the CDX Help Desk at 1-888-890-1995. For implementation or general questions, please contact the UCMR Message Center at 1-800-949-1581 or UCMR4@glec.com. Thank you for your cooperation.

Accept Cancel

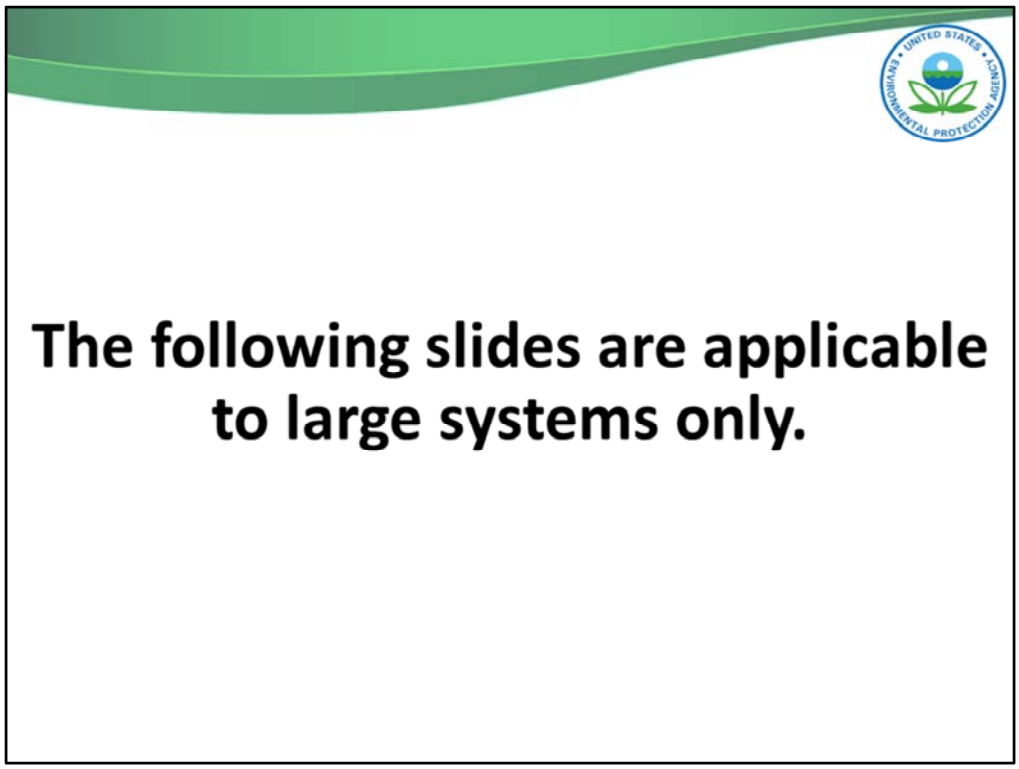
Next you will see your **Notification Letter**. There are seven different versions of the notification letter letting the system know if they are required to monitor for all the Assessment Monitoring (AM) contaminants or a portion of them based on their size, water type, and monitoring requirements. The letter also describes actions you must take prior to December 31, 2017 such as completing inventory and adding contacts. In addition to what your PWS must do during UCMR 4 monitoring, such as use a UCMR 4 approved laboratory, complete reporting requirements, approve analytical results and adhere to CCR requirements. The letter also lets you know where to find the complete rule and supporting reference materials including UCMR 4 fact sheets.

Before you can do anything further in SDWARS4 you must select the **Accept** button at the bottom of the page. The notification letter can be printed for your files and/or viewed at any time.

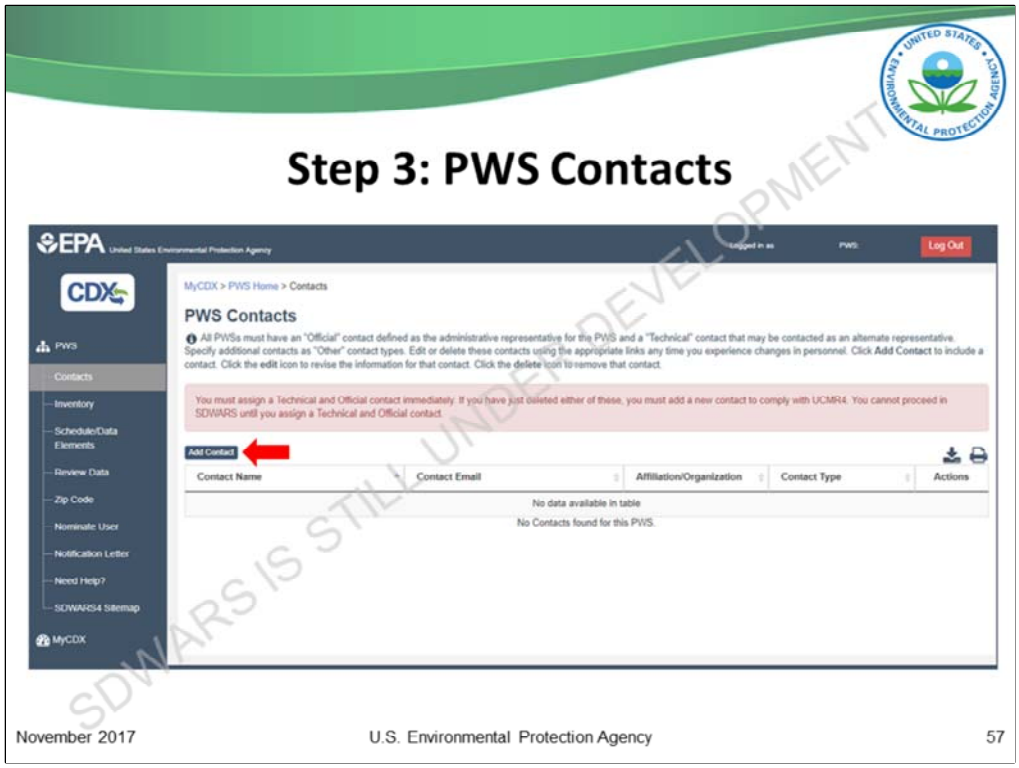
Once you accept your notification letter you can review and/or print it at any time by navigating to **Notification Letter** on the left main menu.



At the bottom of your letter you can view the date when the letter was accepted, the organization name and your user name for the account, seen here as yellow boxes.

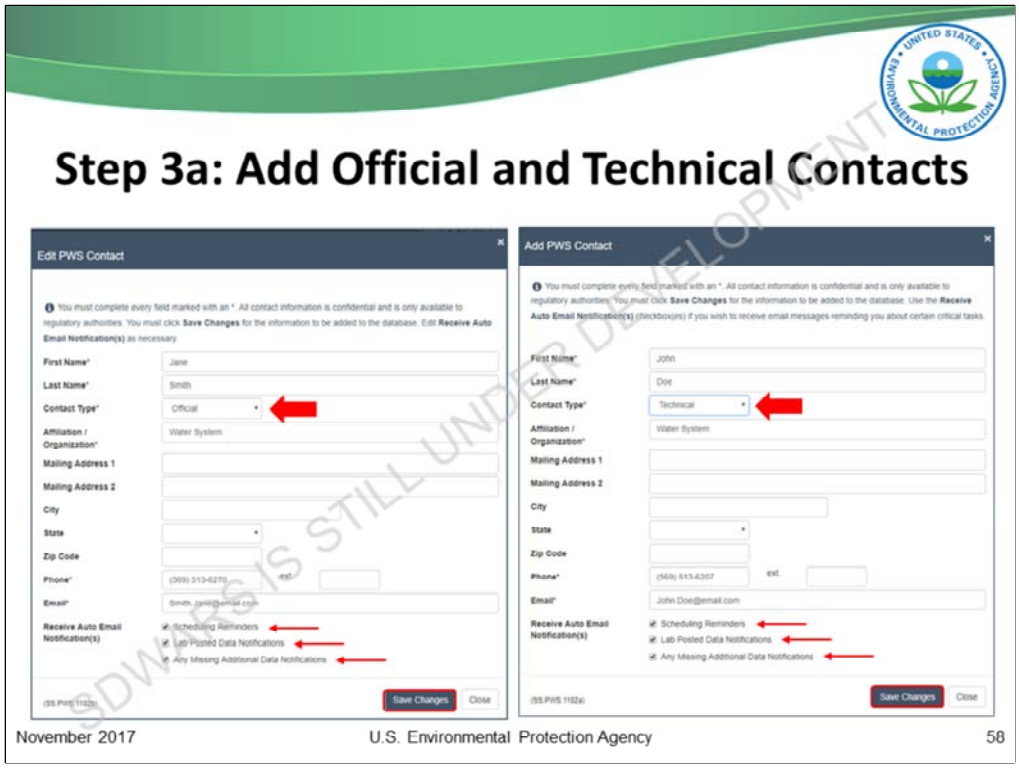


Intentionally Left Blank



Step 3: PWS Contacts. After the notification is accepted, large systems will be brought to the **PWS Contacts** page. You will not be able to navigate to any other sections of the menu prior to adding an official and a technical contact.

Click **Add Contacts** (next to the red arrow), and **Add PWS Contact** pop-up will appear.



You must complete every field marked with an asterisk (*). All contact information is confidential and is only available to regulatory authorities. You must click **Save Changes** for the information to be added to the database. Use the **Receive Auto Email Notifications(s)** checkboxes at the bottom of the screen if you wish for the contact to receive email message reminders about certain critical tasks such as schedules, posted data and missing additional data. These contacts will not have accounts in SDWARS and will not automatically be a PWS representative in SDWARS. You can nominate your contacts so they can additionally take actions and review data in SDWARS.

Please note there are three contact types for each PWS account. An individual PWS is required to have at least 2 contacts (one official and one technical).

Mailing information is not required but EPA appreciates this information.

When your contacts are successfully added you will be redirected back to the **PWS Contacts** screen and a green bar will appear at the top. You should now be able to see the contact information you added in the table on this page. You can edit or delete these contacts using the appropriate links any time you experience changes in personnel but you must maintain at least one technical and one official contact at all times. Use the **Contacts** link in the left hand menu to revisit your contacts at any time.

Now that you have accepted your notification letter and added contacts you may navigate to the PWS main menu. If there are any notifications regarding your account, they will be displayed at the top of this screen.

On the **PWS Home** page you will see all of your added contacts, the monitoring requirements for your PWS and your PWS specifications.

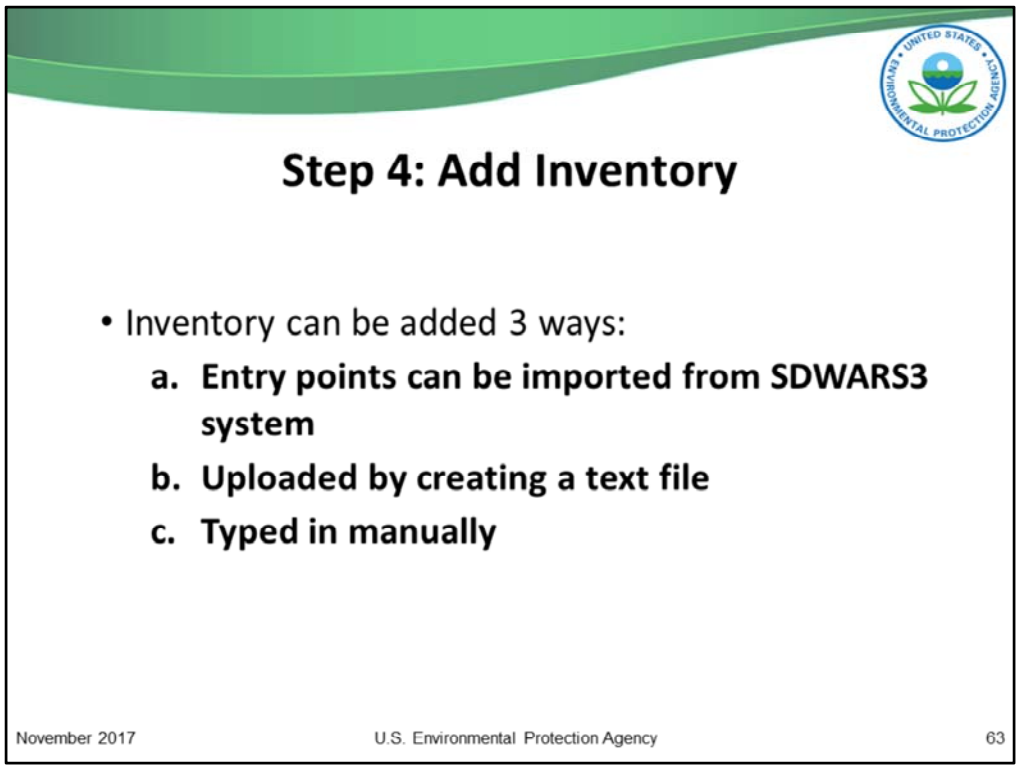
Use the left menu to **Nominate Users**, change or edit **Contacts**, view **Schedule**, complete **Data Elements**, **Review** (sample) **Data**, **enter Zip Codes** or view the **Notification Letter**.

Step 4: Add Inventory. There are 3 options for adding your inventory which can seen here in red boxes. When adding your inventory, please ensure that all required sample locations for UCMR 4 are included which means all entry points (EP) to the distribution system and for those PWSs monitoring the HAAs, their stage 2 distribution system locations and intakes (IN) prior to treatment. An intake sample is not required for consecutive connections.

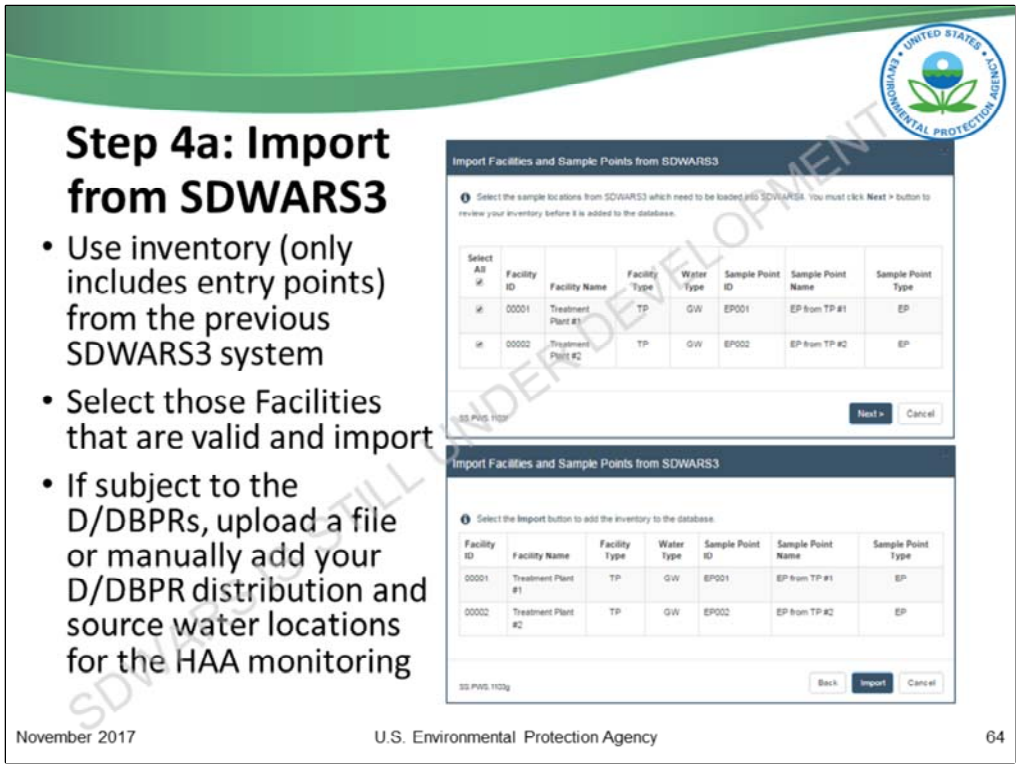
There is some light blue functional text that reads **(more…)** next to the red arrow on the top right. If you click on that, additional instructions on how to add and review inventory will pop-up.

As a reminder, you may add and edit your inventory through SDWARS until December 31st, 2017. After that date, you will be able to review the inventory and make minor edits (which we will see in a few slides) but adding and removing locations should be done through the UCMR Sampling Coordinator.

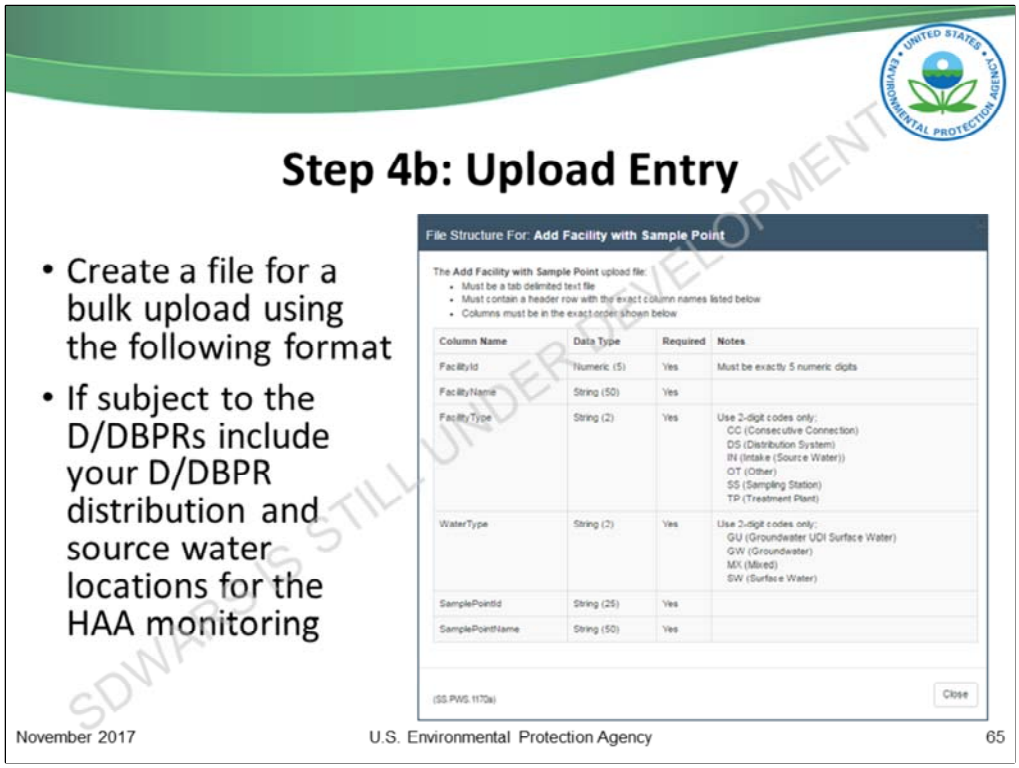
Here is the **How to…** pop-up that is available for reference or as a reminder if it has been awhile since you have made updates to your inventory.



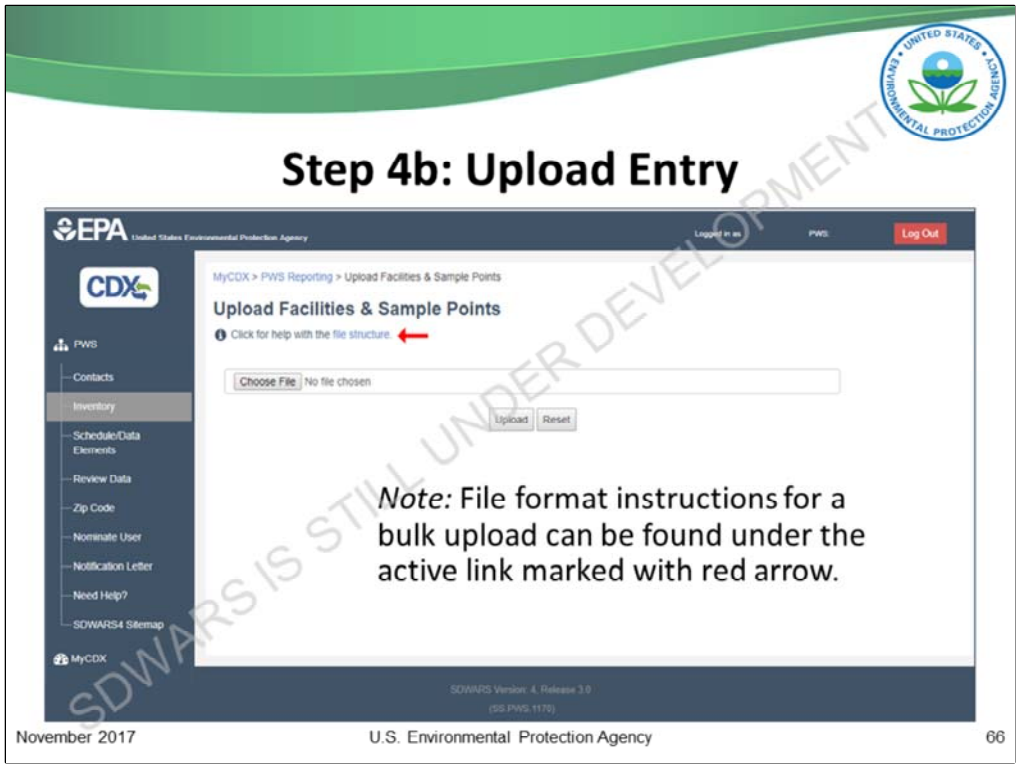
Intentionally Left Blank



Option "a": Once you click on **Import Inventory from SDWARS3** on the inventory home screen, you will be able to select which entry point locations will be loaded into SDWARS4. You must click **Next** to review your inventory before you can select **Import** and add it to the database. If subject to Stage 2, with this option, you must go back to the inventory home screen and add your distribution and source water locations for the HAA monitoring via manual entry or an upload. You will also need to create Distribution System (DS) and Intake (IN) facilities and then add your distribution and Source (Sr) water locations(s) to their respective facility.

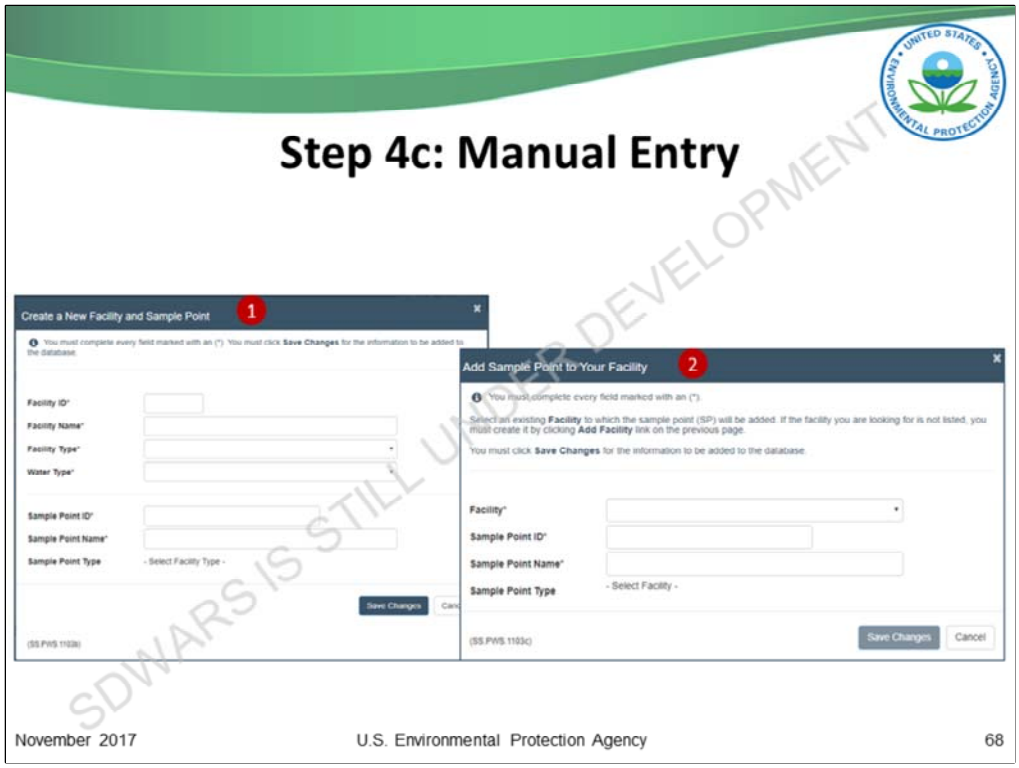


Option "b": the **Upload Facility & Sample Points** upload file must be a tab delimited text file, and must contain a header row with the exact column names and in the exact order as shown here. The column names across the top should be FacilityID (must be exactly 5 numeric digits), FacilityName, FacilityType (one of the listed 2-digit codes), WaterType (one of the listed 2-digit codes), SamplePointID and SamplePointName. As a reminder, if your system is subject to the D/DBPRs include your D/DBPR distribution and source water locations for the HAA monitoring. Systems can use CC (consecutive connection), OT (other), SS (sampling station) or TP (treatment plant facility) to enter EP sample points. Distribution system (DS) and intake (IN) facilities are required to load DS and Sr (source) sampling locations respectively.

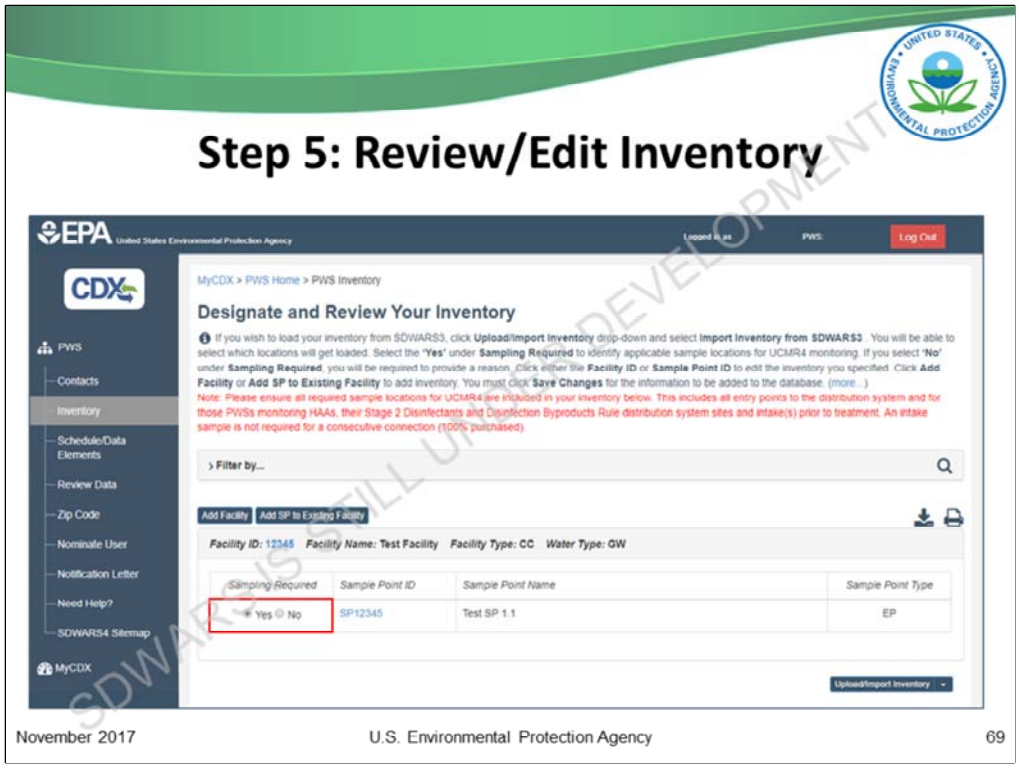


On the **Inventory** home screen, select **Upload Facilities & Sample Points** and create a file for a bulk upload. If you click the **file structure** link (shown next to the red arrow) you will see a pop-up that describes the file format requirements. Once your inventory file is complete and in the correct format select **Choose File** to upload.

Option "c" is to add inventory manually. First, select **Add Facility** (designated by the red "1" on this screen) on the **Inventory** home screen to add a new facility to your PWS. Then select **Add SP to Existing Facility** (designated by the red "2" on this screen) to add an additional sample point to an existing facility. We will cover the fields required for both of these actions on the next slide. You can use the **Filter by…** bar under the instructions to help sort and find inventory during this process.

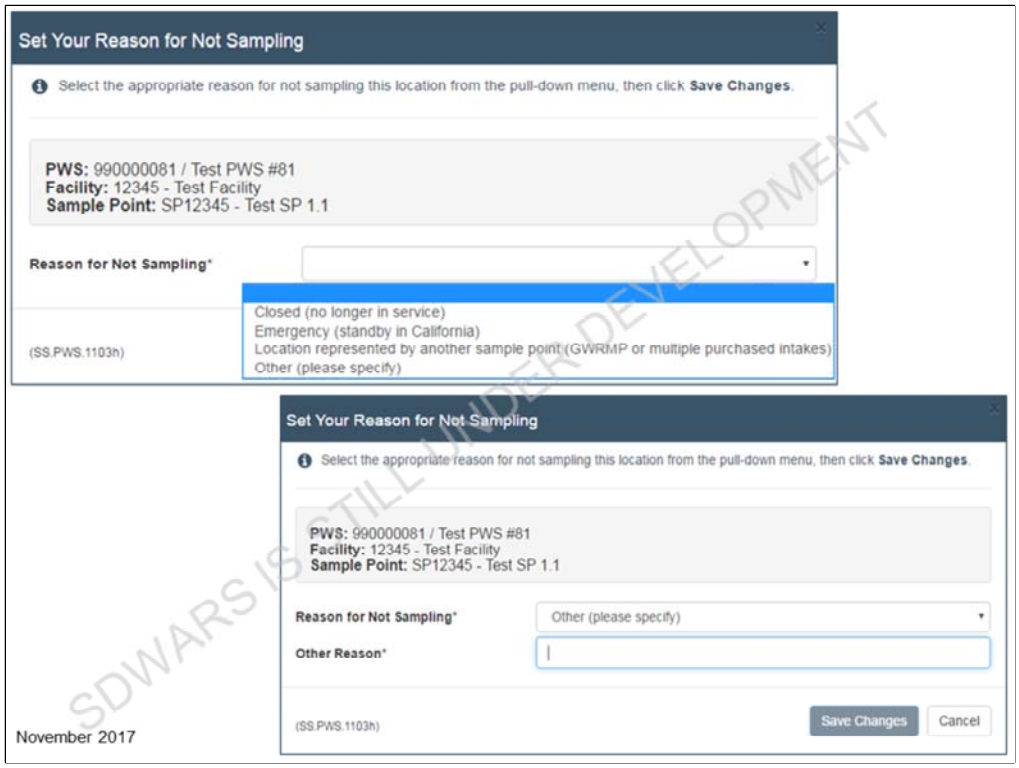


On the left is the **Add Facility** pop-up and on the right is the **Add SP to Existing Facility** pop-up. When adding a sample point to an existing facility, the sample point type will be limited to those types that are applicable to the **Facility Type** of the **Facility**. For example, you can only add a Source (Sr) sample point type to an Intake (IN) facility. You must complete every field marked with an asterisk (*) and click **Save Changes** for the information to be added to the database. A green bar will appear at the top of your inventory home page confirming additions.

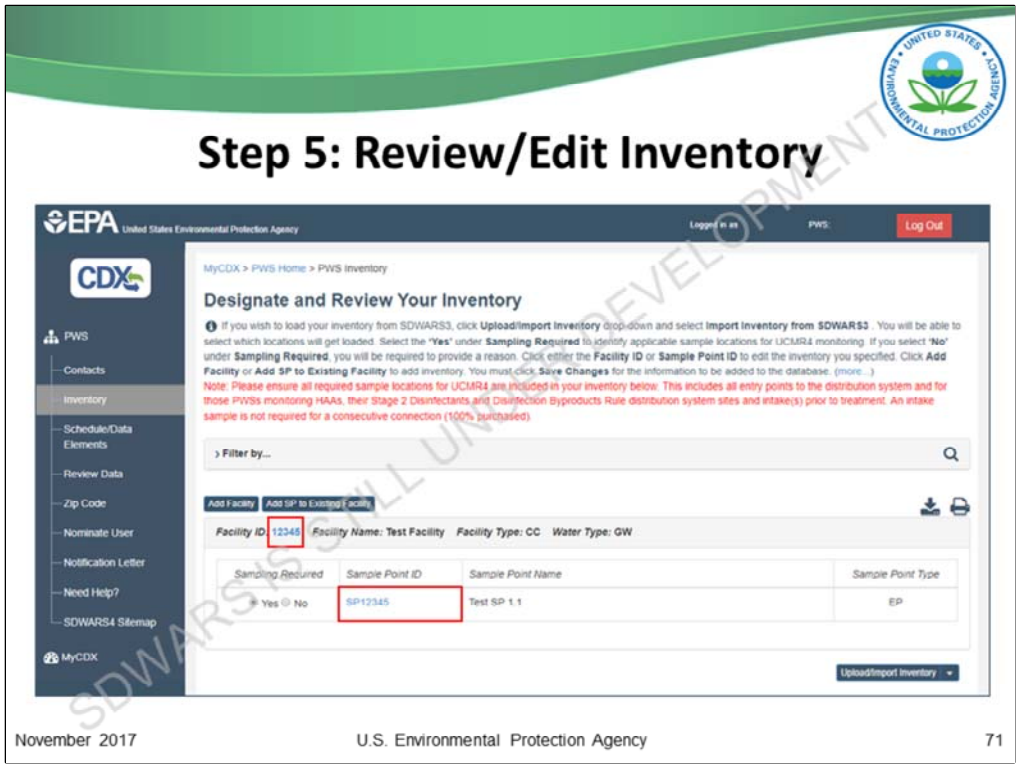


Step 5: Review/Edit Inventory. Once you have added inventory for your PWS, you can review and make changes using this screen.

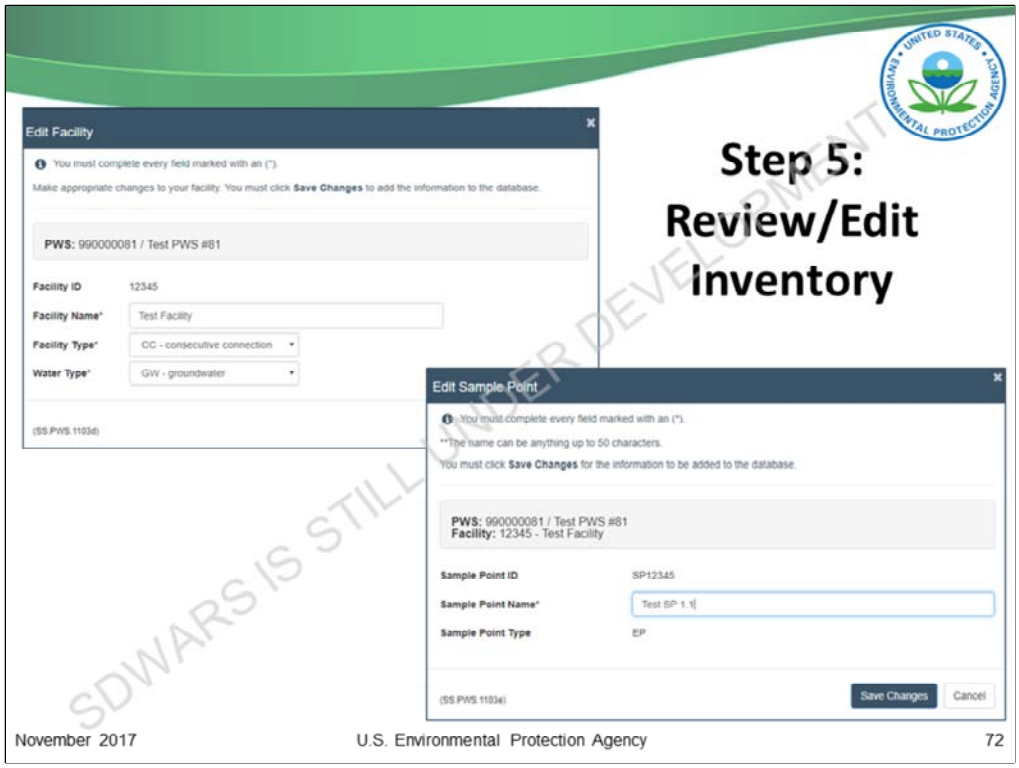
Select the **Yes** under **Sampling Required** to identify applicable sample locations for UCMR4 monitoring. If you select **No** under the **Sampling Required**, you will be required to provide a reason in a pop-up window that will appear (next slide).



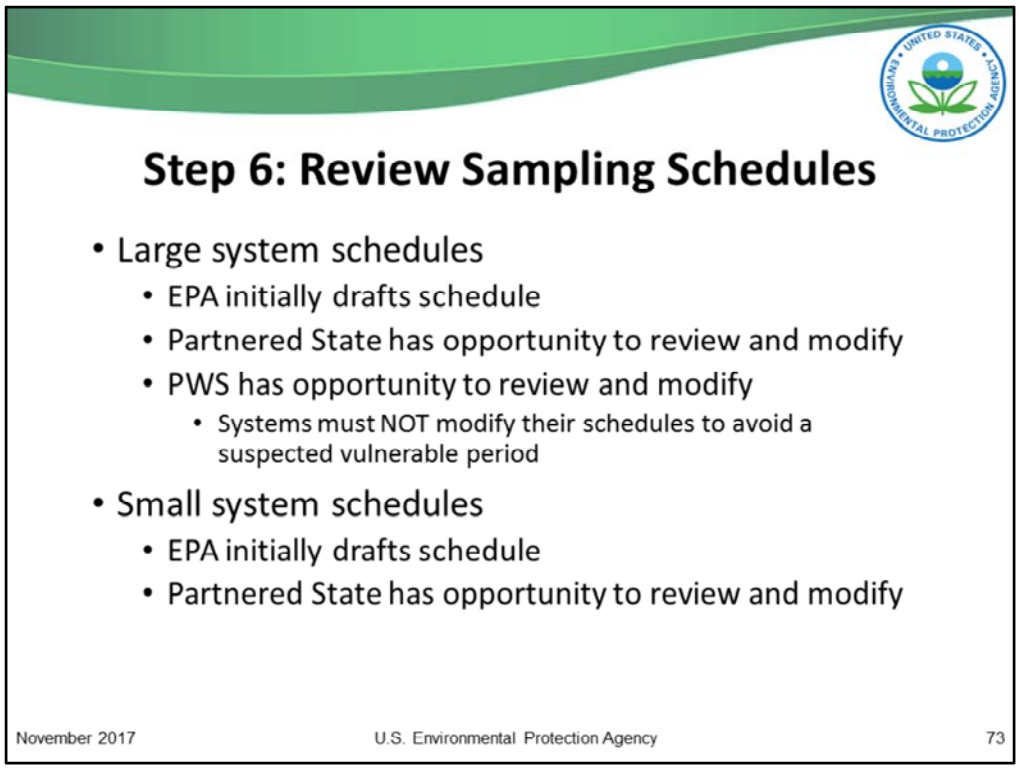
If you select **No** sampling required, this pop-up window will prompt you to select a reason from a drop-down menu. If you select **Other**, you will be prompted to type in the reason.



From the inventory home page, you can also edit facility and sample point information by clicking on the actual **Facility ID** (light blue functional text, shown here in the red boxes). Click either the **Facility ID** or **Sample Point ID** to prompt a corresponding pop-up (as seen on the next slide).

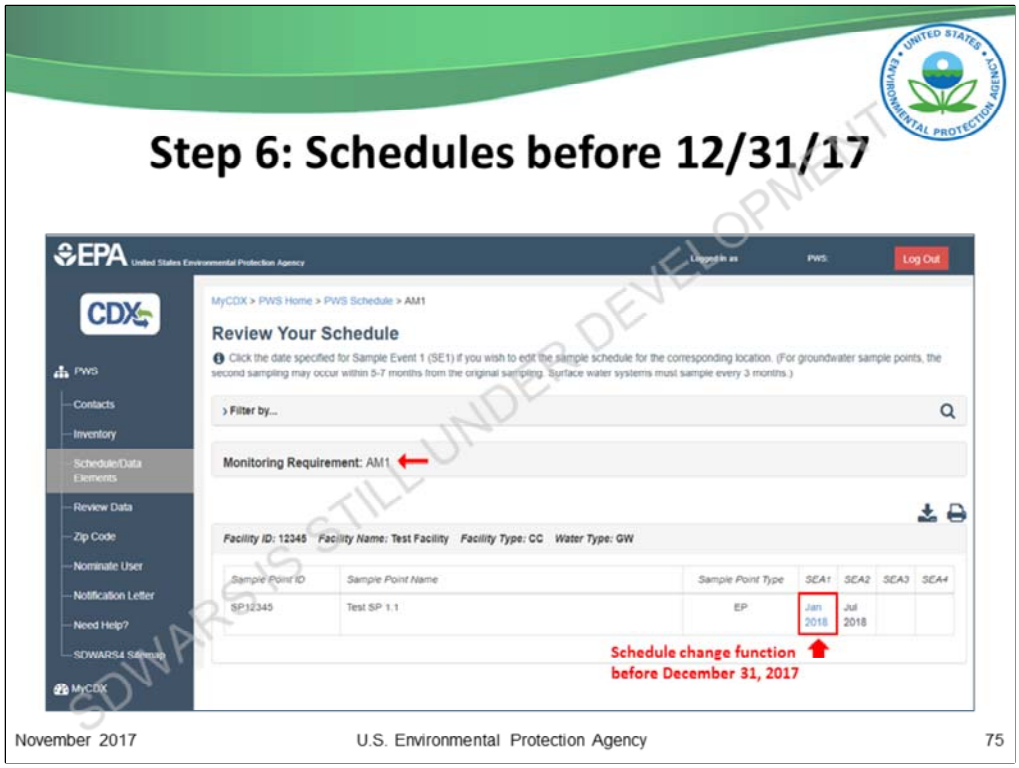


Those marked with an asterisk (*) are required but editable fields. For Facilities, you can edit the **Facility Name**, **Facility Type** or **Water Type**. For sample points, you can edit the **Sample Point Name**. The **Sample Point Type** is dictated by the **Facility Type** (for example Sr SP type at an IN facility).

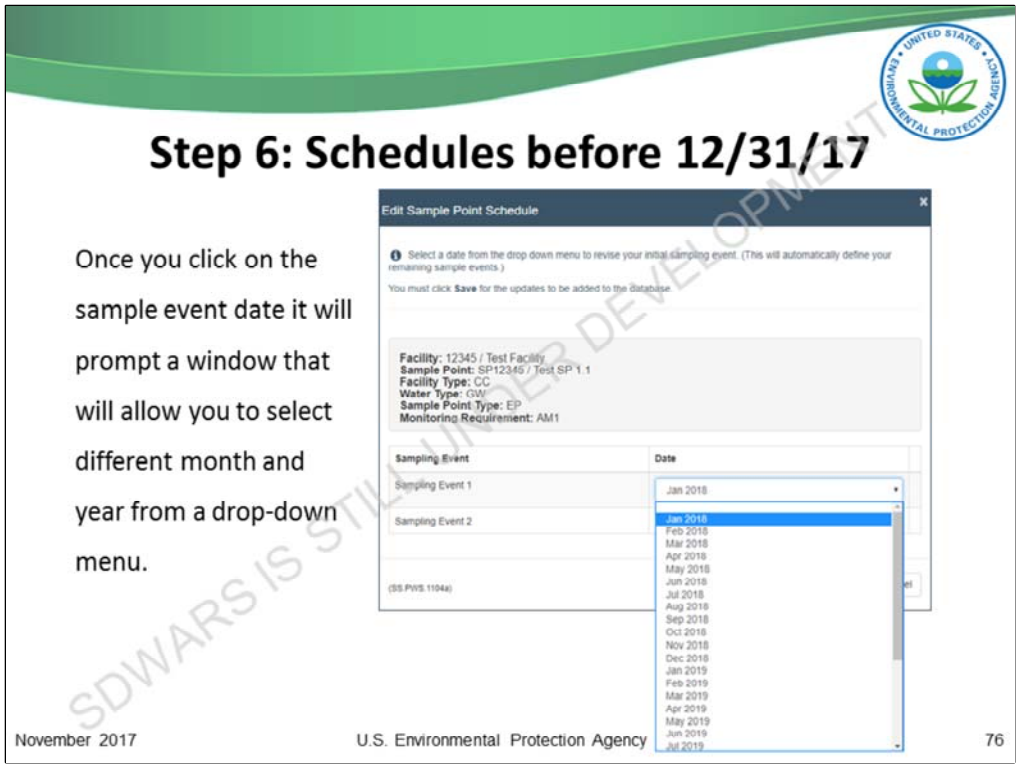


Intentionally Left Blank

Select **Schedule** from the left hand side menu. If your PWS(s) must collect data for multiple monitoring types, click the **Select Monitoring Type** button to choose the schedule you wish to review. For this particular example the PWS is required to perform AM1, AM2 and AM3 monitoring.



Once you select your monitoring type you will be directed to a screen where you can review your schedule. Click the date in blue specified for **Sample Event 1** (SE1) if you wish to edit the sample schedule for the corresponding location. The remainder of the sampling schedule will automatically adjust. This functionality is available until December 31st, 2017. After that date, you will only be able to view your schedule and changes must be made by contacting the UCMR sampling coordinator.



Once you click on the sample event date it will prompt this window. Select a date from the drop-down menu to revise your initial sampling event. This will automatically update your remaining sampling events.

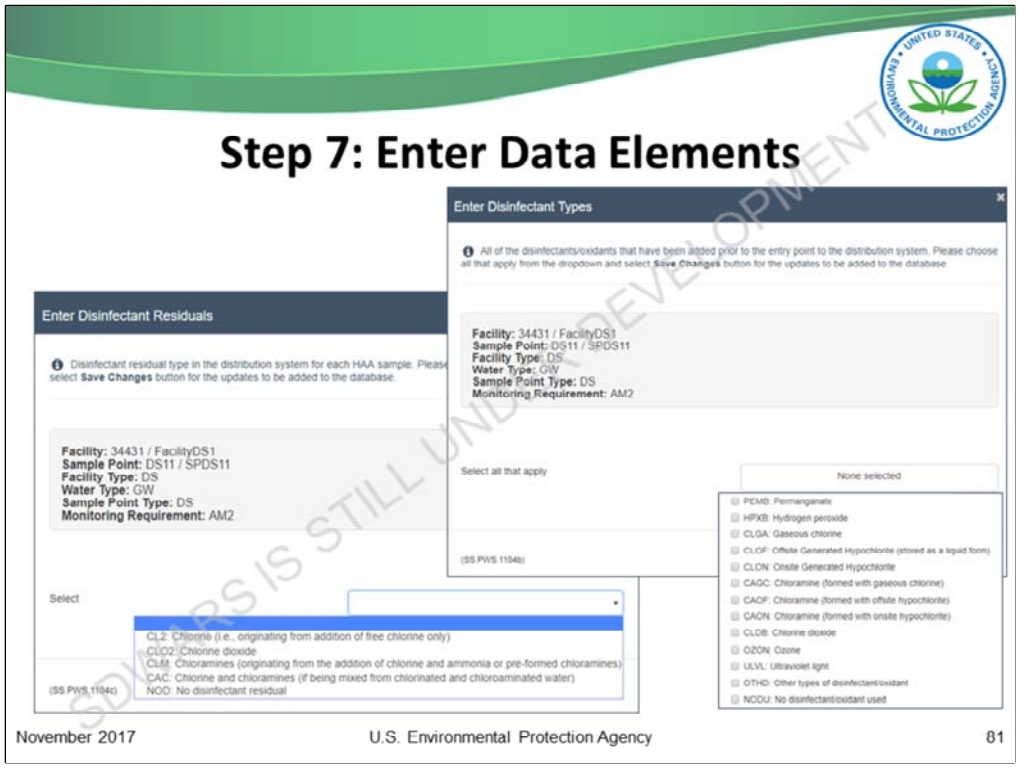
You must click **Save Changes** for the update to be added to the database. This will bring you back to the **Review Your Schedule** screen but with new dates for each SE for that location. Simply click **Cancel** to return to the **Review Your Schedule** screen without any changes.

Step 7: Enter Data Elements. To enter your data elements, begin by selecting a monitoring requirement schedule. Remember to enter these data elements at the time of sample collection.

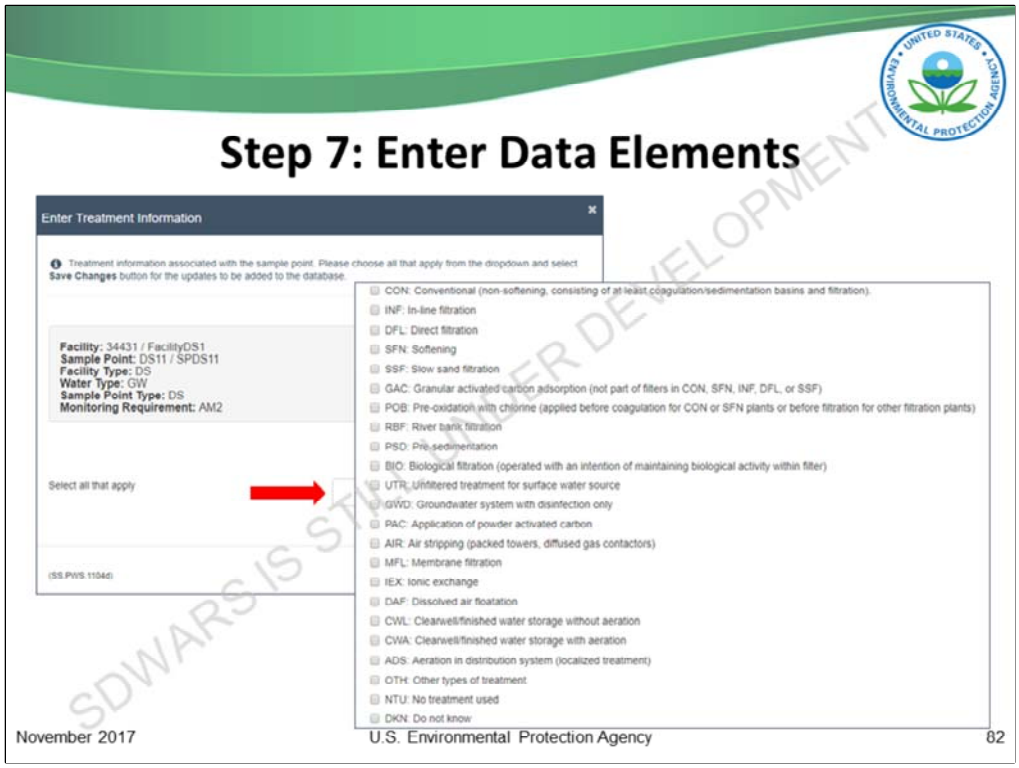
The schedule view will have a button for each sampling event per location after December 31st, 2017. Each button produces a drop-down list of options for data elements and comments. For AM1, there are no data elements so the only option is to enter a comment.

Selecting the **Enter Comments** link produces a pop-up window specific to that sampling location where you can enter comments for each sampling event.

The **AM2 Monitoring Requirement** has several data elements in addition to comment entry. The data elements are **Disinfectant Types**, **Disinfectant Residuals** and **Treatment Information**. The next slide shows examples of these pop-up windows but we will go into more depth about these data elements later on in the webinar.

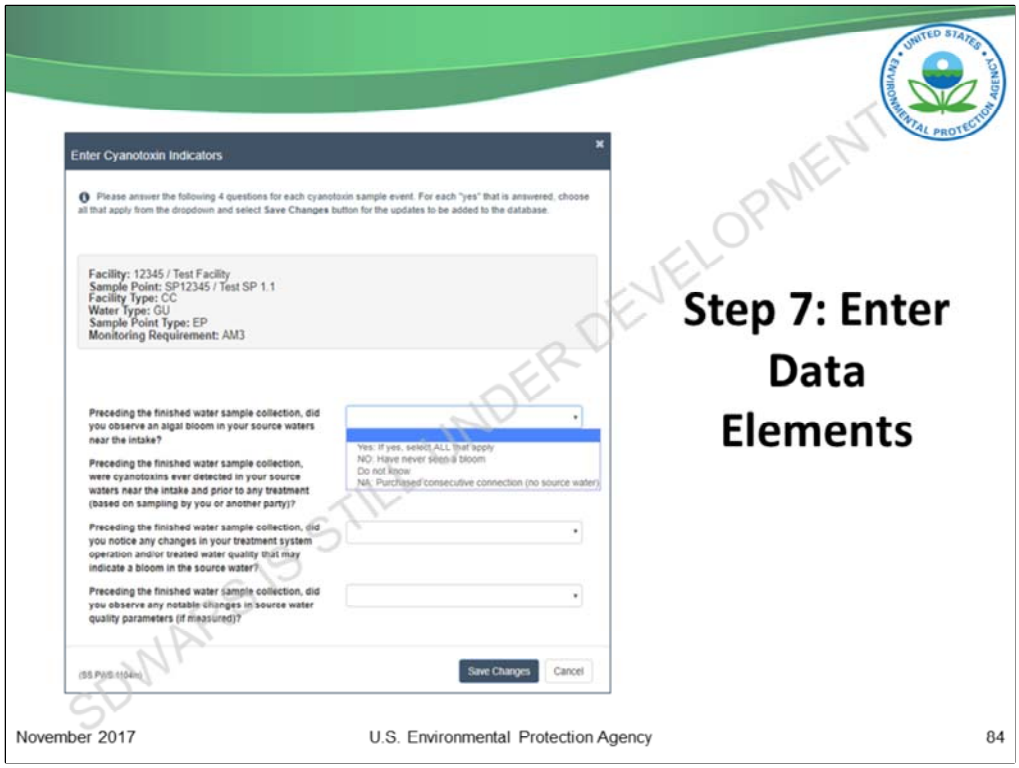


The pop-up windows for each data element display the location and sampling event information as well as the question and a drop-down menu for the answers. Where there are checkmark boxes, you can select multiple answers.



Once you have selected your responses the window will show a summary of how many were selected. Click **Save** to save your responses to the database. Once you have entered these responses for the first sampling event, you can copy the response for subsequent sampling events.

The **AM3 Monitoring Requirement** also has several data elements in addition to comment entry. The data elements are **Disinfectant Types**, **Cyanotoxin Indicators** and **Treatment Information**. The next slide shows examples of these pop-up windows but, again, we will go into more depth about these later.



The **Cyanotoxin Indicators** option has 4 questions with several options. Selecting **Yes** will generate a further option to add some details to your response. There are a few options that allow you to type in a response to a text box.

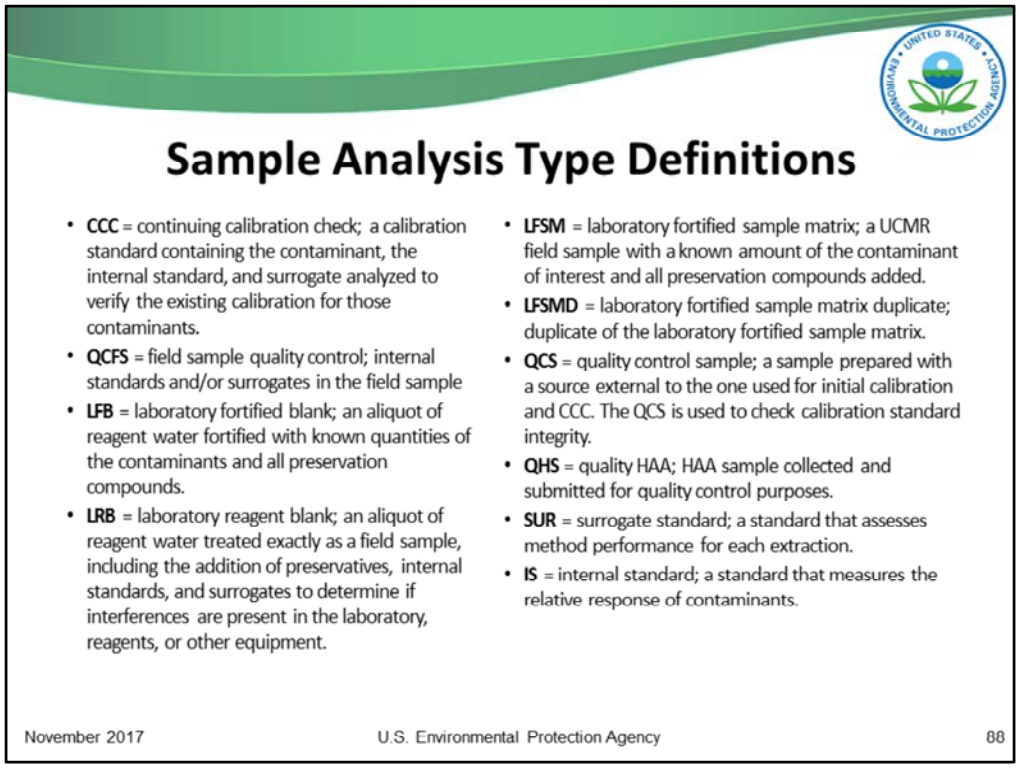
Step 8: Review data. Selecting **Review Data** from the left hand menu, you can search using the laboratory's **Sample ID** or by conducting an **Advanced Search**.

The **Advanced Search** function lets you limit your search by using one or more search fields. Both the Collection Start and End Date must be in the MM/DD/YYYY format as specified in the instructions. Click **Search** to display up to 250 analytical results. If your search exceeds 250 results, you must refine your search criteria to limit the array of data. Or click **Download Results** to export all the data of your specified search.

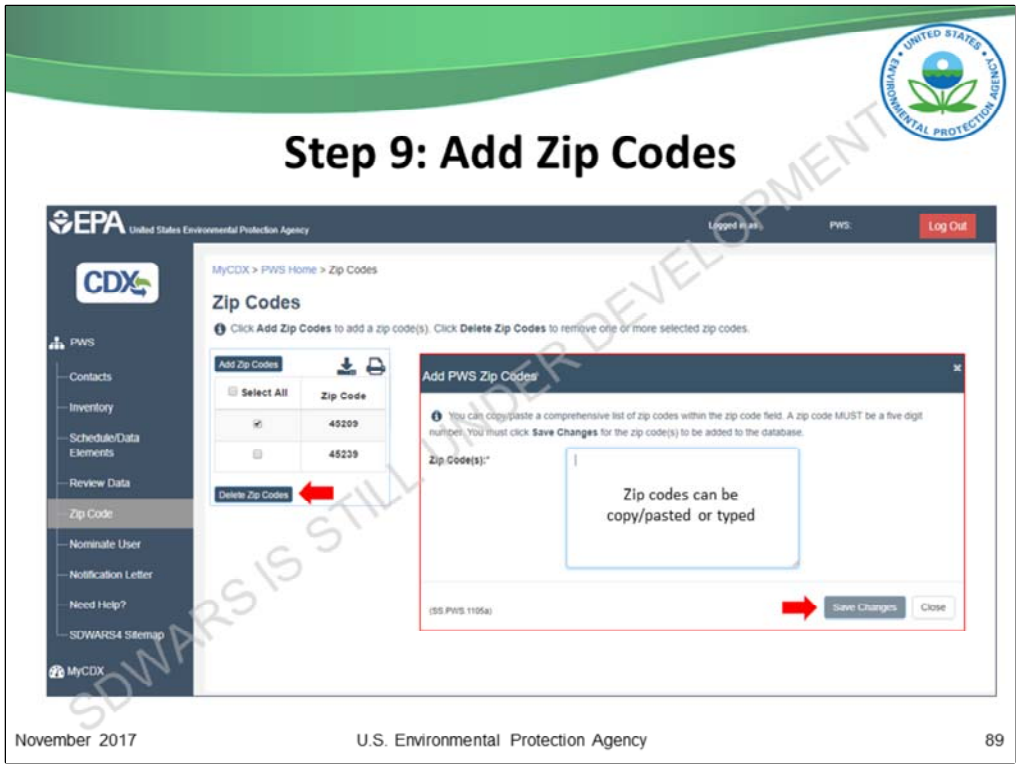
If your search is successful you will be directed to the **Review and Approve Analytical Results Data/Reports** screen, where you can expand and collapse results for each method. Each **Sample ID** is displayed as a tab on the left side of the screen. Each **Analyte** will initially have a drop-down menu on the right side where you can **Approve** the data. Additionally, if what the lab has submitted to you in SDWARS does not match what they have reported to you, you can return the analyte to the lab. Remember, if you do not take action on a results within 60 days, it will default to approved.

In order to view QC data for a specific analyte click on the analyte name. A pop-up window will appear displaying all of the QC data reported for that analyte. If you hover the mouse over a **QC Type**, it will display a brief description.

Most QC types are displayed as a percent recovery with the applicable **Acceptance Range (%)** display on the right according to analyte, method and QC type criteria.



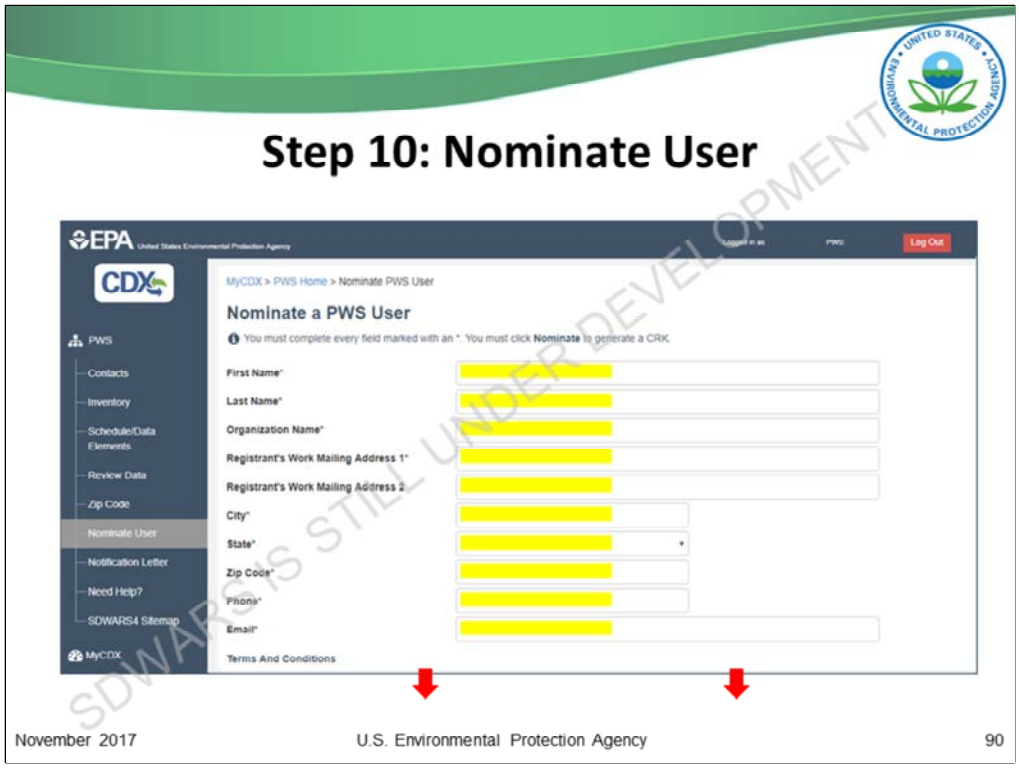
Intentionally Left Blank



Step 9: Add Zip Codes. On the left panel of the home screen select **Zip Code**. Click on **Add Zip Codes** (the red box), which prompts a pop-up window that lets you add zip codes

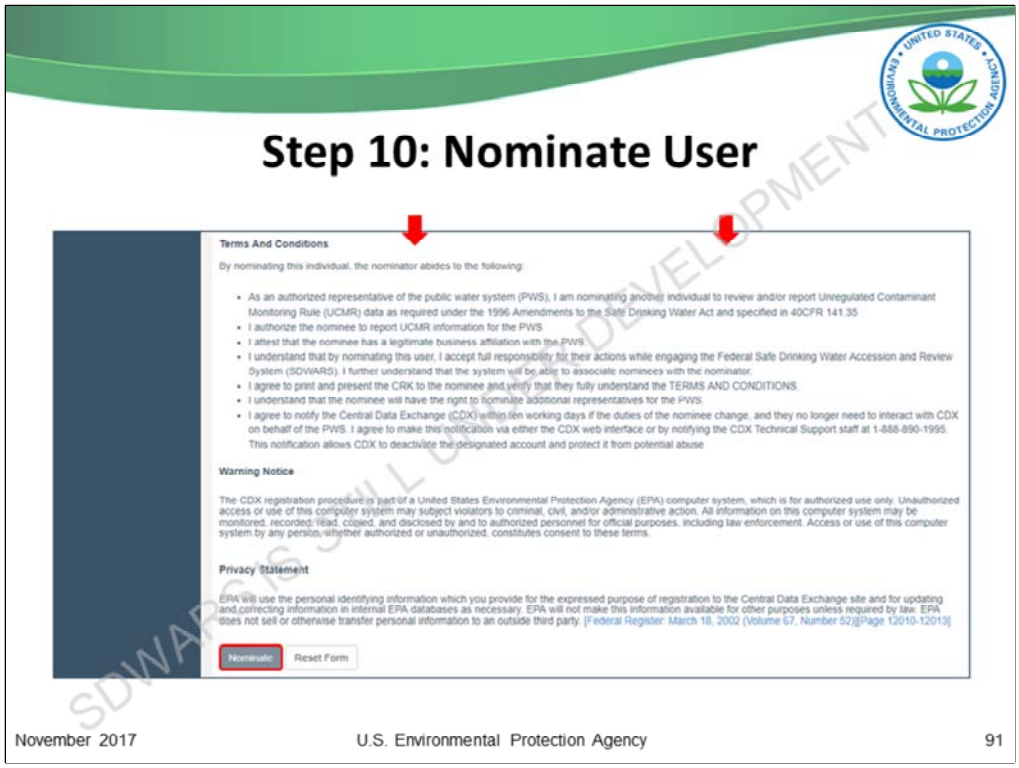
You can copy and paste a comprehensive list of zip codes or type them in. Click **Save Changes** to save them to the database.

Click **Delete Zip Codes** if you would like to remove one or more of the selected zip codes. Make sure you save your changes. You can also download and print your zip codes.



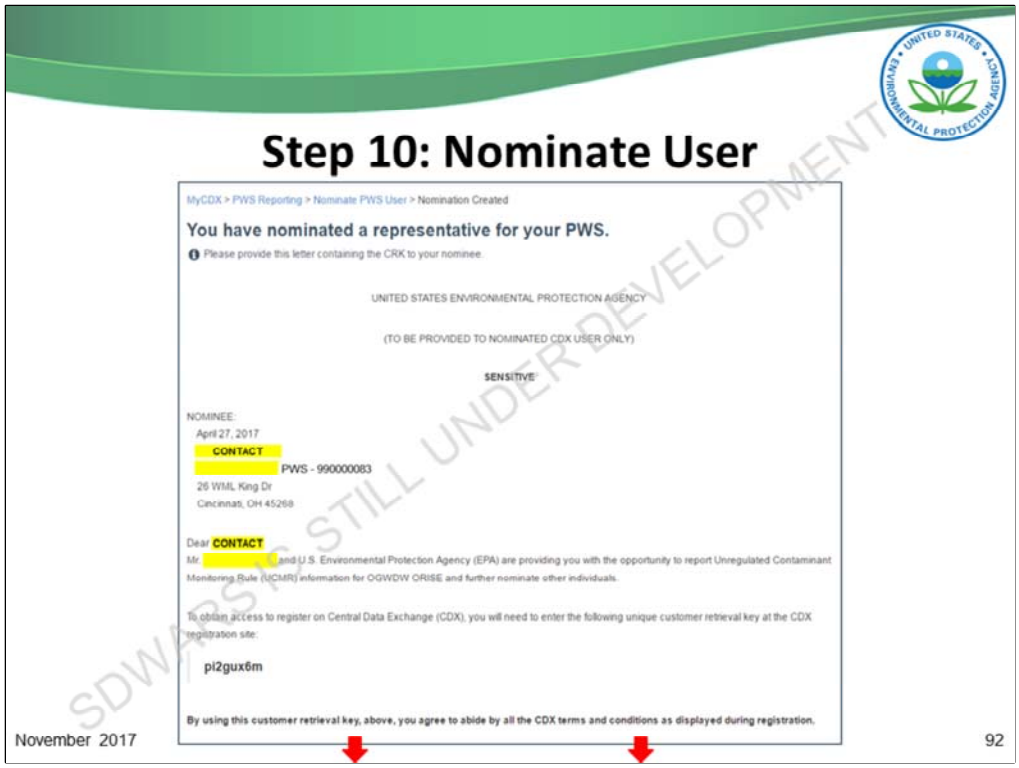
Step 10: Nominate a User. This is optional but if you want to nominate an authorized representative to review and input data into SDWARS you can. It is important to read and understand the terms and conditions of this agreement. The PWS can nominate more than one person.

First, on the left panel of the home screen select **Nominate User**. Then, fill in the areas in the nomination form highlighted here in yellow boxes and click **Nominate** at the bottom of the page to create a CRK for the nominee.



Please review the instructions on your notification page, the warning notice and privacy statement.

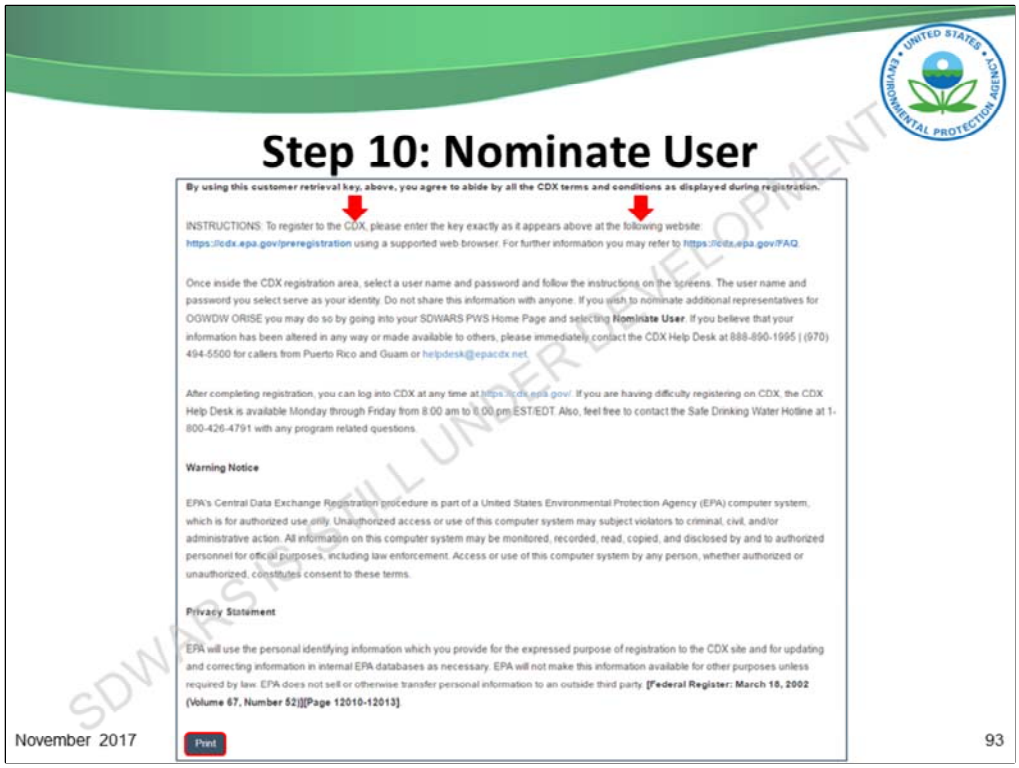
Once you click **Nominate** you will see a confirmation at the top of your screen, saying "You have nominated a representative for your PWS".



The confirmation page is long but the top portion will show the nominee information and, more importantly, a CRK number for the nomination.

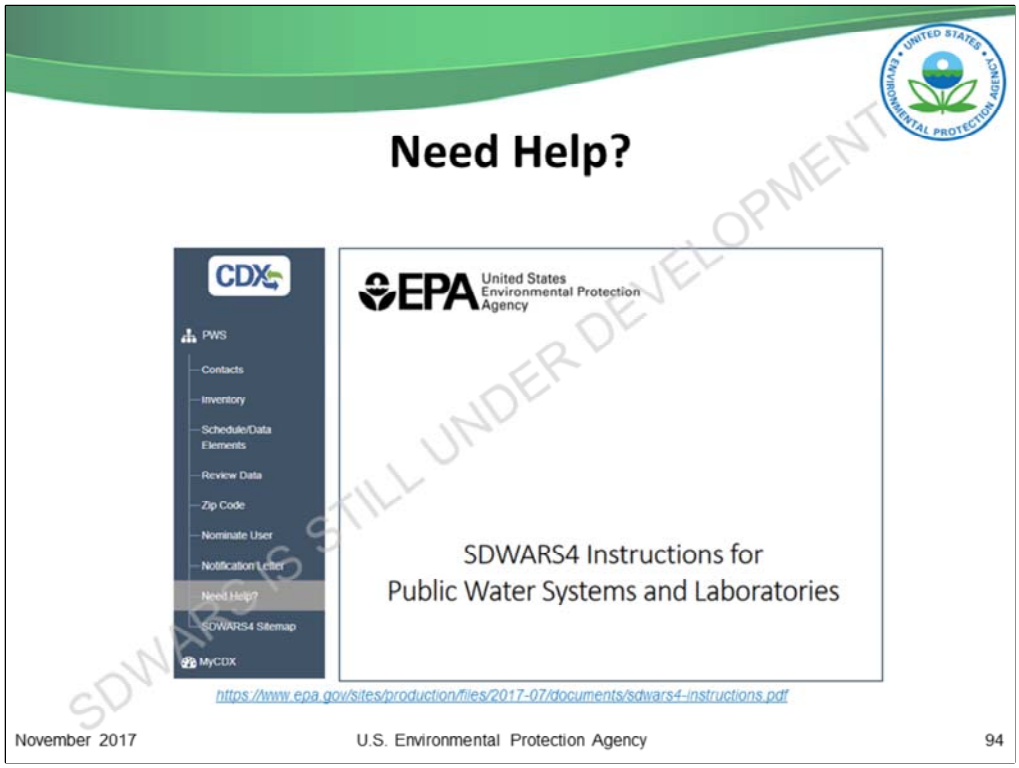
The red arrows here indicate that you need to scroll down to review the instructions, warning notice, privacy statement and print option.

On this example, contact name (as well as the nominee name) and organization information are displayed as yellow boxes.

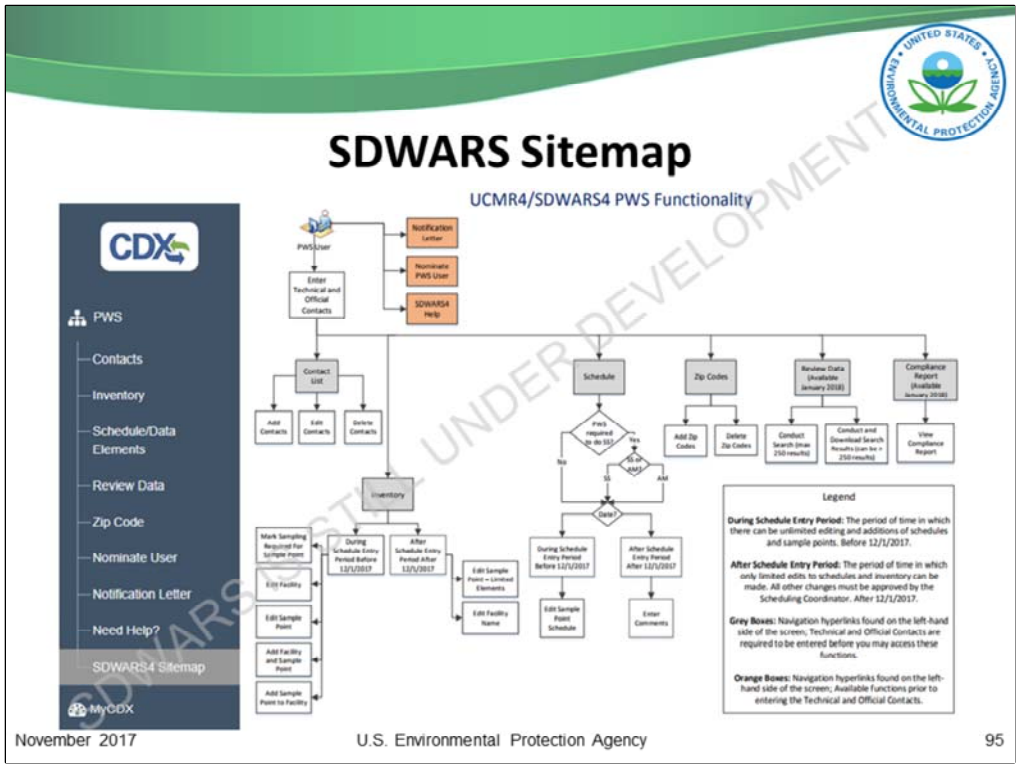


This is the bottom portion of the nomination agreement from the previous page.

You must print out the CRK and registration instructions for the nominee.



Need Help? If so, then select the **Need Help?** section on the main menu to access the SDWARS4 help document.



Also, click **SDWARS4 Sitemap** to view a diagram of all the functions and screens in SDWARS4.