FY 2016 NWPG Measure Definitions Drinking Water

Measure Code: Subobjective SDW-211



Measure Language: Percent of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.

Type of Measure: Target measure; annual

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and phrases:

- *A community water system* (CWS) is a public water system that supplies water to the same population year-round.
- *Source water* is untreated water from streams, rivers, lakes or underground aquifers that is used to provide public drinking water, as well to supply private wells used for human consumption.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information System-Federal (SDWIS-FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) that overlap any part of the most recent four quarters.

Units: Population

Universe: The total population served by community water systems.

Baseline: The percentage of the population served by community water systems that receive drinking water that meets all health based drinking water standards through approaches including effective treatment and source water protection in 2005.

Measure Code: SDW-SP1.N11

Measure Language: Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection.

Type of Measure: Target measure; annually reported

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and phrases:

- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.
- *Source water* is untreated water from streams, rivers, lakes or underground aquifers that is used to provide public drinking water, as well to supply private wells used for human consumption.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information System-Federal (SDWIS-FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) that overlap any part of the most recent four quarters.

Units: Community water systems

Universe: The total number of community water systems.

Baseline: The percentage of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection in 2005.

Measure Code: SDW-SP2

Measure Language: Percent of "person months" (i.e., all persons served by community water systems times 12 months) during which community water systems provide drinking water that meets all applicable health-based drinking water standards.

Type of Measure: Target measure; annually reported

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and phrases:

- *Person-months* for each community water system (CWS) is calculated as the number of months in the most recent four quarter period in which health-based violations overlap, multiplied by the retail population served.
- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information System-Federal (SDWIS-FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) that overlap any part of the most recent four quarters.

Units: Population

Universe: The total population served by community water systems times a 12 month period.

Baseline: The percent of person months (all persons served by community water systems times 12 months) during which community water systems provide drinking water that meets all applicable health based drinking water standards in 2005.

Measure Code: SDW-SP3.N11

Measure Language: Percent of the population in Indian country served by community water systems that receive drinking water that meets all applicable health-based drinking water standards.

Type of Measure: Target measure; annually reported

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and phrases: A *community water system* (CWS) is a public water system that supplies water to the same population year-round.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information System-Federal (SDWIS-FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) in Indian country that overlap any part of the most recent four quarters.

Units: Population in Indian country

Universe: The total population in Indian Country served by community water systems.

Baseline: The percentage of the population in Indian Country served by community water systems that receive drinking water that meets all health based drinking water standards through approaches including effective treatment and source water protection in 2005.

Measure Code: SDW-20

Measure Language: Percent of 'person months' (i.e., all persons served by community water systems times 12 months) during which community water systems in Indian country provide drinking water that meets all applicable health-based drinking water standards

Type of Measure: Target measure; annually reported

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and phrases:

- *Person-months* for each community water system (CWS) is calculated as the number of months in the most recent four quarter period in which health-based violations overlap, multiplied by the retail population served.
- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information

System-Federal (SDWIS-FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) in Indian country that overlap any part of the most recent four quarters.

Units: Population in Indian country

Universe: The total population served by community water systems in Indian country times a 12-month period.

Baseline: The percent of person months (all persons served by community water systems in Indian country times 12 months) during which community water systems in Indian country provide drinking water that meets all applicable health based drinking water standards in 2005.

Measure Code: SDW-SP4 (a,b)

Measure Language: (SDW-SP4a): Percent of community water systems where risk to public health is minimized through source water protection.

(SDW-SP4b): Percent of the population served by community water systems where risk to public health is minimized through source water protection.

Type of Measure: Target measure; annually reported

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Measure Definition

- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.
- *Source water* is untreated water from streams, rivers, lakes or underground aquifers that is used to provide public drinking water, as well to supply private wells used for human consumption.

Methodology for computation of results: The percent of community water systems and the percent of population served by community water systems are calculated each year using data reported by the states. States report the number of community water systems with source water protection in place and the population served by community water systems with source water protection in place. A system is considered to have source water protection in place if it meets the state specific definition of substantial implementation of a source water protection. The total number of community water systems and the total population served is taken from the Safe Drinking Water Information System–Federal (SDWIS–FED).

Units: SP4a - Community Water Systems; SP4b - Population

Universe: SP4a – The total number of community water systems. SP4b – The total population served by community water systems (FY 2012).

Baseline: SP4a – The percentage of community water systems where risk to public health is minimized through source water protection in FY 2005. SP4b – The percentage of population served by community water systems where risk to public health in minimized through source water protection.

Measure Code: SDW-18.N11

Measure Language: Number of American Indian and Alaska Native homes provided access to safe drinking water in coordination with other federal agencies.

Type of Measure: Target Measure; annually reported

Measure Contact: Ronald Bergman, EPA Office of Ground Water and Drinking Water

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Measure Definition

- Access is the reduction in the sanitation deficiency level of a tribal home from a 4 or 5 to a 3 or less. The sanitation deficiency levels definitions are described in Appendix E of the "Indian Health Service Sanitation Deficiency System Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities," working draft, May 2003 and may be found online at: http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf
- Sanitation deficiency is an identified need for new or upgraded sanitation facilities for existing homes of American Indians or Alaska Natives (http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf)

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) will use the actual number of homes reported in the Indian Health Service's (IHS) Sanitation Deficiency System (SDS) as provided access to potable water to show progress towards this measure. EPA headquarters will obtain this value from IHS in order to calculate annual performance.

Units: American Indian and Alaska Native Village homes

Universe: The total number of American Indian and Alaska Native homes

Baseline: The number of American Indian and Alaska Native Village homes provided access to safe drinking water between 2003 to 2009

Measure Code: SDW-01 (a,b)

Measure Language: (SDW-1a): Percent of community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers or those ground water systems approved by the primacy agency to provide 4-log treatment of viruses).

(SDW-1b) Number of tribal community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers or those ground water systems approved to provide 4-log treatment of viruses).

Type of Measure: Target measure; annually reported

Measure Contact: Mindy Eisenberg, EPA Office of Ground Water and Drinking Water

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Measure Definition

- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.
- A *primacy agency* is a state, territory or tribal government with primary enforcement authority for the Public Water System Supervision (PWSS) program. EPA is the primacy agency for Wyoming, the District of Columbia and in Indian country, except for the Navajo Nation.
- A *sanitary survey* is an on-site review of the water sources, facilities, equipment, operation, and maintenance of a public water system for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water.

Methodology for computation of results: The Interim Enhanced Surface Water Treatment Rule (IESWTR) and the Ground Water Rule (GWR) require primacy agencies to conduct sanitary surveys once every three years for CWSs. For CWS determined by the primacy agency to have outstanding performance based on prior sanitary surveys, subsequent sanitary surveys may be conducted no less than every five years per sec. 142.16(b)(3)(ii) and sec. 142.16(o)(2)(iii). In addition, ground water systems approved by the primacy agency to provide 4–log treatment of viruses may have sanitary surveys conducted no less than every five years (per sec. 142.16(o)(2)(iii).

Units: SDW-01a Community Water Systems, expressed as a percentage; SDW-01b Number of tribal Community Water Systems

Universe: SDW-01a - Total number of community water systems in the U.S.

SDW-01b - Total number of water systems for tribal's community water system source from surface water.

Baseline: SDW-01a – Percent of community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers or those ground water systems approved by the primacy agency to provide 4-log treatment of viruses).

SDW-01b - Number of tribal community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers or those ground water systems approved to provide 4-log treatment of viruses).

Measure Code: SDW-04

Measure Language: Fund utilization rate [cumulative dollar amount of loan agreements divided by cumulative funds available for projects] for the Drinking Water State Revolving Fund (DWSRF).

Type of Measure: Target measure; annually reported

Measure Contacts: Charles Job, EPA Office of Ground Water and Drinking Water <u>job.charles@epa.gov</u> | (202) 564–3941

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Measure Definition

- "The *fund utilization rate* shows how many dollars of assistance were provided for each dollar made available for projects. It measures all funds (federal and non-federal) signed into loans against all funds (federal and non-federal) made available for projects," as provided to Office of Management and Budget as a long-term output/efficiency goal Program Assessment Rating Tool (PART) response.
- The *Drinking Water State Revolving Fund* (DWSRF) was established by the Safe Drinking Water Act, as amended in 1996, to make funds available to drinking water systems to finance infrastructure improvements.

Methodology for computation of results: Results are calculated by dividing cumulative assistance provided in the form of executed loans by cumulative funds available for projects. Assistance provided as a percent of Funds Available = 'Cumulative DWSRF Assistance provided' divided by 'Cumulative Funds Available.'

Units: dollars (expressed as a percentage)

Universe: cumulative dollar amount of loan agreements

Baseline: cumulative funds available for projects in FY 2005

Measure Code: SDW-05

Measure Language: Number of Drinking Water State Revolving Fund (DWSRF) projects that have initiated operations. (cumulative)

Type of Measure: Target measure; cumulative measure reported annually

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Measure Definition

Terms and phrases: The *Drinking Water State Revolving Fund* (DWSRF) was established by the Safe Drinking Water Act, as amended in 1996, to make funds available to drinking water systems to finance infrastructure improvements.

Methodology for computation of results: The Drinking Water National Information Management System (DWNIMS) is the information system of record for the Drinking Water State Revolving Loan Fund (DWSRF). All states report data for their DWSRF program to DWNIMS once each year. EPA develops a national summary of the DWSRF program from this data. Line 183 in DWNIMS reports the number of projects completed each year while line 184 reports the cumulative number of projects completed since program inception. For all practical purposes, projects completed means projects initiating operations.

Units: DWSRF projects

Universe: not applicable

Baseline: projects that have initiated operations (cumulative) in FY 2005.

Measure Code: SDW-7

Measure Language: Percent of Classes I, II and Class III salt solution mining wells that have lost mechanical integrity and are returned to compliance within 180 days thereby reducing the potential to endanger underground sources of drinking water.

Type of Measure: Target measure; annually reported

Measure Contact: Beth Hall, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and phrases:

- An *injection well* is a device that places fluid deep underground into porous rock formations, such as sandstone or limestone, or into or below the shallow soil layer. These fluids may be water, wastewater, brine (salt water), or water mixed with chemicals.
- "*Wells that have lost mechanical integrity*" means that the well does not meet the definition of a well that has maintained mechanical integrity (Citations: 40 CFR 146.8; 40 CFR 144.28(f)(2)for authorized by rule (ABR) wells and 144.51(q) for permitted wells). Wells with MI failure would be considered to be in violation (with the exception of some 1425 programs). However, other MI violations, such as those related to late tests or record keeping, are not reported under this measure.
- A "*well returned to compliance*" is a well that was in violation of Underground Injection Control (UIC) Program requirements, which has had the violation(s) corrected and has had the resolution of the violation(s) verified by the regulating authority.

Methodology for computation of results: The number of wells that lose mechanical integrity and are returned to compliance are reported through the UIC Inventory and Measures Reporting System (IMRS) or through the UIC National Data Base

Units: Class I wells, Class II wells, Class III wells (salt solution mining) as defined by the UIC Data Model Version 8.0 (edited 5/3/10).

Universe: The total number Class I, Class II and Class III (salt solution mining wells). This number changes yearly.

Baseline: not applicable

Measure Code: SDW-08

Measure Language: Number of Class V motor vehicle waste disposal wells (MVWDW) and Large Capacity Cesspools (LCC) that are closed or permitted (cumulative).

Type of Measure: Budget measure; annually reported

Measure Contact: Beth Hall, EPA Office of Ground Water and Drinking Water.

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Measure Definition

Terms and phrases:

- A *Class V motor vehicle waste disposal well* (MVWDW) is a well used to inject fluids from motor vehicle repair or maintenance activities, such as an auto body repair shop, automotive repair shop, car dealership, specialty repair shop (e.g., transmission and muffler repair shop), or any other facility that does vehicle repair work. These wells are classified as 5K as defined by the UIC Data Model Version 8.0 (edited 5/3/10).
- EPA defines *Large-Capacity Cesspools* (LCC) as a well having the capacity to serve 20 persons or more per day and used solely for the subsurface emplacement of sanitary waste. These wells are classified as 5E as defined by the UIC Data Model Version 8.0 (edited 5/2/10). The definition of "large-capacity" may vary from state to state as long as the definition is at least as stringent as the Federal definition. For example, some states define large-capacity cesspools based on the amount of waste or the volume capacity of the cesspool.

Methodology for computation of results: Number of MVWDW and LCC cumulatively permitted and/or closed as reported by primacy programs are reported through the UIC Inventory and Measures Reporting System (IMRS) or through the UIC National Data Base.

Units: Class V wells and LCCs

Universe: The total number of Class V wells and Large-Capacity Cesspools (LCCs)

Baseline: The number of Class V wells and Large-Capacity Cesspools (LCCs) that are closed or permitted in at a point in time.

Measure Code: SDW-11

Measure Language: Percent of DWSRF projects awarded to small PWS serving <500, 501-3,300, and 3,301-10,000 consumers.

Type of Measure: Indicator measure; cumulative measure reported annually

Measure Contact: Howard Rubin, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and phrases: A *public water system* (PWS) is any water system which provides water to at least 25 people for at least 60 days annually. There are more than 170,000 PWSs providing water from wells, rivers and other sources to about 250 million Americans. The others drink water from private wells. There are differing standards for PWSs of different sizes and types.

Methodology for computation of results: The Drinking Water National Information Management System (DWNIMS) is the information system of record for the Drinking Water State Revolving Fund (DWSRF). All states report data for their DWSRF program to DWNIMS once each year. EPA develops a national summary of the DWSRF program from this data.

Units: DWSRF projects

Universe: The total number of DWSRF projects.

Baseline: DWSRF projects awarded to small PWS serving <500, 501-3,300, and 3,301-10,000 consumers from FY 2009.

Measure Code: SDW-15

Measure Language: Number and percent of small CWS and NTNCWS (<500, 501-3,300, 3,301-10,000) with repeat health based Nitrate/Nitrite, Stage 1 D/DBP, SWTR and TCR violations.

Type of Measure: Indicator measure; cumulative measure reported annually

Measure Contact: Ronald Bergman, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and phrases:

- *CWS* are community water systems
- *TNCWS* are transient non-community water systems
- NTNCWS are non-transient non-community water systems
- *Repeat violations* are defined as repeats of the same combination of violation code (Eg: 21 TCR MCL) and contaminant type (Eg: TCR). If a particular combination of violation code and contaminant type occurs at a particular system more than once in a Fiscal Year, this constitutes a repeat violation.

Methodology for computation of results: For the purposes of this analysis, only repeat health-based TCR, Nitrates, and SWTR violations were included. The analysis is based on SDWIS-FED data within the previous 12 months year ending June 30th. Systems must serve fewer than 10,001 people. The same violation code and contaminant type combination must occur more than once in the above 12 month period. TNCWS were excluded from the analysis.

Units: small CWS and NTNCWS

Universe: Total Community Water Systems and Non-Transient Non-Community Water Systems (< 10,000)

Baseline: Community Water Systems and Non-Transient Non-Community Water Systems (< 10,000 with repeat Health-Based violations) in FY 2009

Measure Code: SDW-17

Measure Language: Number and percent of schools and childcare centers that meet all health-based drinking water standards.

Type of Measure: Indicator measure; cumulative measure reported annually

Measure Contact: Ronald Bergman, EPA Office of Ground Water and Drinking Water

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Measure Definition

- *CWS* are community water systems
- *TNCWS* are transient non-community water systems
- NTNCWS are non-transient non-community water systems
- *Schools* are defined as CWS or NTNCWS with a primary service area equal to SC (school) or DC (daycare). Puerto Rico systems were not included. California systems were based on a list of school systems provided by California.

Methodology for computation of results: For the purposes of this analysis, only school systems without reported health-based violations were included. The analysis is based on SDWIS-FED data within the previous 12 months year ending June 30th.

Units: Schools and childcare centers

Universe: schools and child care centers that are their own public water system.

Baseline: schools and child care centers in FY 2009 that meet all health-based drinking water standards

Measure Code: SDW-19a

Measure Language: Volume of CO2 sequestered through injection as defined by the UIC Rule.

Type of Measure: Indicator Measure; annually reported

Measure Contact: Beth Hall, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and Phrases: Geologic Sequestration (GS) is the process of injecting carbon dioxide (CO2), captured from an industrial (e.g., steel and cement production) or energy-related source (e.g., a power plant or natural gas processing facility), into deep subsurface rock formations for long-term storage. This is part of a process frequently referred to as "carbon capture and storage" or CCS.

Methodology for computation of results: The volume of CO2 sequestered through injection is calculated by OGWDW.

Units: Volume, actual on-site injected volume in the current quarter measured in million gallons to 4 significant figures.

Universe: not applicable

Baseline: not applicable

Measure Code: SDW-19ab

Measure Language: Number of permit decisions during the reporting period that result in CO2 sequestered through injection as defined by the UIC Rule.

Type of Measure: Indicator measure; annually reported

Measure Contact: Beth Hall, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and Phrases: Geologic Sequestration (GS) is the process of injecting carbon dioxide (CO2), captured from an industrial (e.g., steel and cement production) or energy-related source (e.g., a power plant or natural gas processing facility), into deep subsurface rock formations for long-term storage. This is part of a process frequently referred to as "carbon capture and storage" or CCS.

Methodology for computation of results: The number of permit decision is calculated by OGWDW

Units: permit actions defined as permits issued.

Universe: not applicable

Baseline: not applicable

Measure Code: SDW-21

Measure Language: Number of drinking water and wastewater utilities and local, state, and federal officials receiving training and technical assistance to enhance emergency preparedness and resiliency to reduce risk from all hazards including those attributed to climate change impacts.

Type of Measure: target measure; annually reported by OGWDW

Measure Contact: David Travers, EPA Office of Ground Water and Drinking Water

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Measure Definition

Terms and Phrases: Preparedness is defined as a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. This cycle is one element of a broader National Preparedness System to prevent, respond to, and recover from natural disasters, acts of terrorism, and other disasters.

Methodology for computation of results: The number of drinking water and wastewater utilities and local, state, and federal officials is calculated by OGWDW.

Units: utilities and officials

Universe: not applicable

Baseline: not applicable