

Analyte, Fraction and Constituent Updates

The following information documents changes to the CEDEN Controlled Vocabulary maintained by the four Regional Data Centers. The changes will be effective as of December 10th, 2012.

The following updates will occur within the CEDEN Controlled Vocabulary:

1. Definition of the fraction “Dissolved” to “Material that passes through a filter no larger than 1.0 µm or as defined by the analysis method”;
2. Update of many fractions associated with specific analytes from “None” to an appropriate option of “Dissolved”, “Particulate” or “Total”;
3. Updates to some Analytes to include Total in their name which is commonly used when referring to an analyte (for example, Total Dissolved Solids).

Background

The definition for the CEDEN fraction of dissolved has been updated to be more detailed and specific than the previous definition. The fraction of dissolved is now defined as "Material that passes through a filter no larger than 1.0 µm or as defined by the analysis method". A size class of less than 1.0µm was selected after review of many different methods for different analytes, and was found to encompass the filtration sizes used to identify the dissolved fraction of an analyte. A review of the use of the fraction "None", "Total", "Dissolved" and "Particulate" has resulted in an update to analyte and constituent (the combination of analyte, method, fraction, matrix and unit) values. Many of the analytes associated with the fraction “None” have been updated if there is a possibility that the analyte could be measured after the sample is filtered. Field, chemistry and toxicity water quality constituents have been affected by this update. Habitat and bacteria constituents remain with a fraction of “None”.

In addition, two analyte names have been updated to include Total in the analyte name.

Specific updates are reflected in Tables 1 (Analyte Updates), 2 (Constituent Updates) and 3 (Fraction Description Update).

Who Will This Affect?

This update will affect all data providers that are submitting data to a Regional Data Center (RDC) to be made available through the CEDEN system. All data currently within the CEDEN system will be updated. For data within CEDEN that will require an update to the associated fraction, if it is unknown whether the sample was filtered or not (no preparation was recorded or not specified in the method), a fraction of “Not Recorded” will replace the previous fraction of “None”.

Any questions regarding these updates can be directed to your local [Regional Data Center](#).

Analyte Lookup Update

The below table includes all analyte names that have been updated within the CEDEN system.

Table 1. Analyte LookUp Updates.

PREVIOUS ANALYTE NAME	PREVIOUS ANALYTE DESCRIPTION	UPDATED ANALYTE NAME	UPDATED ANALYTE DESCRIPTION
Dissolved Solids	Dissolved Solids - Total, Fixed or Volatile fractions	Total Dissolved Solids	Total Dissolved Solids
Suspended Solids	Suspended Solids - Total, Fixed or Volatile fractions	Total Suspended Solids	Total Suspended Solids

Constituent Lookup Update

A constituent is comprised of analyte, matrix, method, fraction, and unit. Table 2 includes all constituents that will be updated within the CEDEN system (listed by analyte name and matrix) due to changes in the associated fraction name. "Not Recorded" is a fraction option when the fraction has not been recorded and it is unknown if the sample was filtered. The below table only includes analyte names and matrix names that are currently within the CEDEN system; additional combinations may be added to the CEDEN controlled vocabulary as new data are submitted.

Table 2. Constituent LookUp Updates (listed alphabetically). Descriptions of analytes, matrix and fractions can be found on the CEDEN webpage with the controlled vocabulary metadata ([CEDEN Controlled Vocabulary](#)).

ANALYTE NAME	PREVIOUS FRACTION NAME	MATRIX NAME OPTIONS	UPDATED FRACTION NAME OPTIONS ¹
Acid Neutralizing Capacity	None	blankwater; samplewater	Total, Dissolved
Ammonium as N	None	sediment, interstitialwater	Total, Dissolved
Anatoxin-A	None	blankwater; samplewater	Total, Dissolved, Particulate
Bicarbonate	None	blankwater; samplewater	Total, Dissolved, Particulate
BOD	None	blankwater; samplewater; labwater	Total, Dissolved, Particulate
Bromide	None	blankwater; samplewater	Total, Dissolved, Particulate
Carbonate	None	blankwater; samplewater	Total, Dissolved, Particulate
Chloride	None	blankwater; samplewater; labwater; runoff	Total, Dissolved, Particulate
Chlorine, Total Residual	None	overlyingwater	Total, Dissolved
Chlorophyll a	None	blankwater; samplewater	Total, Dissolved, Particulate
Chlorophyll, Total	None	samplewater	Total, Dissolved, Particulate
COD	None	blankwater; samplewater; labwater	Total, Dissolved, Particulate
Cylindrospermopsin	None	samplewater	Total, Dissolved, Particulate
Dissolved Inorganic Carbon	None	samplewater	Dissolved
Dissolved Organic Carbon	None	blankwater; samplewater; labwater	Dissolved
ElectricalConductivity	None	not recorded; overlyingwater; samplewater	Total, Dissolved

ANALYTE NAME	PREVIOUS FRACTION NAME	MATRIX NAME OPTIONS	UPDATED FRACTION NAME OPTIONS¹
Fluorescence	None	samplewater	Total
Fluoride	None	blankwater; samplewater	Total, Dissolved, Particulate
Hydrogen Sulfide	None	overlyingwater	Total, Dissolved
Hydrogen Sulfide	None	sediment, interstitialwater	Total, Dissolved, Particulate
Hydroxide	None	blankwater; samplewater	Total, Dissolved, Particulate
Iron	None	blankwater	Total, Dissolved, Particulate
MBAS	None	blankwater; samplewater; labwater	Total, Dissolved, Particulate
MCY-LA	None	blankwater; samplewater	Total, Dissolved, Particulate
MCY-LR	None	blankwater; samplewater	Total, Dissolved, Particulate
MCY-RR	None	blankwater; samplewater	Total, Dissolved, Particulate
MCY-YR	None	blankwater; samplewater	Total, Dissolved, Particulate
Mercury	None	sediment	Total
Nitrate + Nitrite as N	None	blankwater; samplewater; runoff	Total, Dissolved
Nitrate + Nitrite as N	None	sediment	Total
Nitrate as N	None	blankwater; samplewater; labwater; runoff; effluent	Total, Dissolved
Nitrite as N	None	blankwater; samplewater; labwater; runoff; effluent	Total, Dissolved
Nitrogen, Total	None	blankwater; samplewater; labwater; runoff; effluent	Total, Dissolved
Nitrogen, Total	None	sediment; blankmatrix	Total
Nitrogen, Total Kjeldahl	None	blankwater; samplewater; labwater; runoff; effluent	Total
OilandGrease	None	blankwater	Total, Dissolved, Particulate
Oxygen, Dissolved	None	blankwater; samplewater; overlyingwater; not recorded; sediment, interstitialwater	Total, Dissolved
Oxygen, Saturation	None	samplewater	Total, Dissolved
Particulate Organic Carbon	None	blankwater; samplewater	Particulate
Perchlorate	None	blankwater; samplewater	Total, Dissolved, Particulate
Pheophytin a	None	blankwater; samplewater; benthic	Total, Dissolved, Particulate
Salinity	None	blankmatrix; sediment, interstitialwater, blankwater; samplewater; not recorded; overlyingwater	Total, Dissolved
Saxitoxins	None	samplewater	Total, Dissolved, Particulate
SpecificConductivity	None	blankwater; samplewater; overlyingwater; not recorded; labwater	Total, Dissolved
SpecificConductivity	None	sediment	Total
Sulfate	None	blankwater; samplewater	Total, Dissolved, Particulate
Sulfide, Total	None	overlyingwater; sediment, interstitialwater	Total, Dissolved, Particulate
Suspended Sediment Concentration	None	blankmatrix; blankwater; samplewater	Particulate
Total Alkalinity (calc)	None	blankwater; samplewater	Total, Dissolved
Total Dissolved Solids ²	Total ³	blankwater; samplewater; labwater; effluent; runoff	Dissolved
Total Hardness (calc)	None	blankwater; samplewater	Total, Dissolved

ANALYTE NAME	PREVIOUS FRACTION NAME	MATRIX NAME OPTIONS	UPDATED FRACTION NAME OPTIONS¹
Total Organic Carbon	None	blankmatrix; sediment, interstitialwater, sediment, blankwater; samplewater	Total
Total Suspended Solids ²	Total ³	blankwater; samplewater; labwater; runoff	Particulate
Turbidity	None	blankwater; samplewater; overlyingwater	Total
Urea	None	samplewater	Total, Dissolved, Particulate

¹If the fraction is unknown, Not Recorded can be used for any analyte.

²Analyte Name is the Updated Analyte Name represented in Table 1.

³Note there are also "Fixed" and "Volatile" fractions for this analyte but are not displayed within the table because there were no updates for those fractions.

Fraction LookUp Update

Table 3. Fraction LookUp Update.

FRACTION NAME	OLD FRACTION DESCRIPTION	UPDATED FRACTION DESCRIPTION
Dissolved	Dissolved portion of sample (after filtration), used when the possibility of a "total" fraction exists	Material that passes through a filter no larger than 1.0 um or as defined by the analysis method

Contact Information

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