



**COLORADO WATER QUALITY MONITORING COUNCIL  
COLORADO DATA SHARING NETWORK**

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**CDSN Universal Minimum Data Elements Physical/Chemical Data | 2014**

CDSN AWQMS divides elements into 4 main categories which are uploaded separately, using specific templates:

1. Organizational elements
2. Project elements
3. Monitoring Location elements (what Phil calls "metadata")
4. Activities/Results for the type of sampling such as Physical/Chemical Results

Once 1-3 are uploaded, they do not need to be uploaded again unless changes are being made or unless there are additional Projects and/or Monitoring Locations to add to the system.

1. Organizational elements -- see CDSN New Organization form (download at [http://www.coloradowaterdata.org/background\\_2013/fin/new\\_data\\_provider\\_materials/New\\_Org\\_Form\\_CDSN\\_Aug\\_2013.docx](http://www.coloradowaterdata.org/background_2013/fin/new_data_provider_materials/New_Org_Form_CDSN_Aug_2013.docx)). CDSN uploads the information on this form for you, when you order your CDSN AWQMS-WQX Org ID.

Organizational Element	Notes
Organization ID	
Organization Name	For Reg85 WQCD requires including your Watershed Group and CO Discharge Number
Organization Description	
Mailing Address	
Physical Address (if different)	
Phone	Can be office, mobile or both (specify type)
Fax	Optional
Organization Web Site	
Primary Contact Name	
Primary Contact Email	

## This is the "Universal" CDSN Organization form.

2. Project elements -- see CDSN Project form (download at [http://www.coloradowaterdata.org/background\\_2013/fin/new\\_data\\_provider\\_materials/Projects\\_Form.xlsx](http://www.coloradowaterdata.org/background_2013/fin/new_data_provider_materials/Projects_Form.xlsx)). CDSN or you can upload this form into AWQMS.

Project Element	Notes
Project ID	
Project Name	
Project Description	
QAPP (SAP) Approved Indicator	For Reg85 say "Yes"
QAPP Approval Agency Name	Required for Reg85 and if the QAPP Approved Indicator is "Yes"; Typically use "USEPA" or "CDPHE WQCD"
Project Attachment File Name	For Reg85 Attach SAP, put full file name, ends with .zip
Project Attachment File Type	Required by AWQMS if file name specified, must be .zip

This is the "Universal" CDSN Project form. It has all of the info required by both CDSN and CDPHE WQCD (2013). Your SAP is attached and uploaded into AWQMS.



### May 2014 Update:

For data that is required to be submitted to a third party such as WQCD for a regulation or program (Reg85, Non-Point Source), CDSN had previously co-developed a protocol to put a common "tag" into an Activity Group element to be able to quickly search for, analyze and/or export data across multiple organizations, projects, and monitoring locations. For example to search for "%85%" would produce all of the Reg85 data stored in the system as long as it had the Reg85 tag.

CDSN and the database programmers have realized technical limitations with this original approach. So the new 2014 protocol moving forward is that any data that will need to be submitted for Reg85 for example, will not only be associated with the original Project ID, commonly used by the data organization, but will also be associated with a CDSN "global" Project ID. Any result can be associated with up to 3 Project IDs. Thus, any Reg85 organization will need to upload the following CDSN Reg85 Project in addition to their Projects:

Project Element	Notes
Project ID	WQCD_REG85
Project Name	WQCD_REG85
Project Description	CDSN Project Name for all data to be submitted to Colorado Water Quality Control Division (WQCD) to fulfill Regulation 85 requirements.
QAPP (SAP) Approved Indicator	For Reg85 say "Yes"
QAPP Approval Agency Name	Required for Reg85 and if the QAPP Approved Indicator is "Yes"; Typically use "USEPA" or "CDPHE WQCD"
Project Attachment File Name	For Reg85 Attach SAP, put full file name, ends with .zip
Project Attachment File Type	Required by AWQMS if file name specified, must be .zip

**Any organization with data that needs to be submitted to WQCD for Reg85 must also associate this Project ID with their Reg85 Activities/Results or else their data will not be included in the annual CDSN Reg85 data submittal to WQCD.**

### 3. Monitoring Location elements --

#### DSN Essential Data Elements for CDSN SURFACE & GROUND WATER MONITORING LOCATIONS

(Pink Shaded is what CDSN and/or WQCD required in 2013; Gold Shaded is strongly recommended and/or conditionally required; Gray are available data elements that are not currently included in the "universal template" but can be added if desired.)

Column/Element	Notes
Organization ID	
Monitoring Location ID	
Monitoring Location Name	For Reg85 WQCD & CDSN requires including CO Discharge Number in the Name
Monitoring Location Type	
Monitoring Location Description	Many Reg85 organizations put their discharge permit number (again) here along with node details from their SAP.
HUC 8	Use the CDSN GIS application to find the HUC8 code (and HUC12)

HUC 12	Strongly recommended! Use the CDSN GIS application to find the HUC12 code (and HUC8)
Tribal Land Indicator (Y/N)	Allowable values are "Yes" or "No"
Tribal Land Name	Conditional if Tribal Land Indicator is "Yes"
Alternate Monitoring Location ID	Such as USGS Station/Gage station number...
Alternate Monitoring Location Context	Conditional, if Alt Monitoring Location ID populated
Latitude	Decimal Degrees; or Deg Min Sec
Longitude	Decimal Degrees; or Deg Min Sec
Source Map Scale	Conditional. Required when Horizontal Collection Method = "Interpolation-Map"
Horizontal Collection Method	
Horizontal Reference System (Datum)	
Vertical Measure (Elevation)	
Vertical Measure UoM (Unit)	Units in Feet ("Ft") recommended
Vertical Collection Method	
Vertical Reference System (Datum)	
State Code	CO (or NM)
County Name	
Country Code	US
Well Type	
Aquifer Name	
Well Formation Type	
Well Hole Depth Measure Value	
Well Hole Depth Measure Unit	
Comments	
Monitoring Location Attachment File Name	Could be a map or document, save as .pdf first and then zip it to a .zip file.
Monitoring Location Attachment Type	Required if file name given. Will always be a .zip.
Waterbody Name	If on Strm/River/Lake/Res; Ex: South Platte

Assessment Unit ID	
Assessment Unit Use ID	
Ecoregion Level 3 ID	
Ecoregion Level 4 ID	
Reach Code	
Township/Range/Section	
Watershed Management Unit	
Horizontal Accuracy	
Horizontal Accuracy UoM	
Date Established	

This is the "Universal" CDSN Monitoring Location form. It has all of the info required by both CDSN and CDPHE WQCD (2013).

#### 4. Activity/Results --

##### DSN Essential Data Elements FOR PHYSICAL/CHEMICAL ACTIVITIES/RESULTS

\* is required for AWQMS and/or WQCD, therefore required. For more detailed allowable values refer to green tabs on Activity/Results Excel template (spreadsheet). Pink rows are required. White rows are optional or may be required for Ground Water/Well activities. Yellow are conditionally required. See the CDSN Physical/Chemical Data Upload Template for more info.

Column/Element	WQCD EDD?	* CDSN Required?	Notes
Project ID	*	*	Matches exactly the ID in Project detail above
Project ID #2 (if sampling is for 2 different projects; Required to use CDSN Reg85 or NPS Project IDs for those programs)	*	*	<b>WQCD_REG85</b> [required in order for your data to be submitted by CDSN to WQCD for Reg85.] -or- <b>CO_NPS</b> [required in order for your data to be searchable as Non-Point Source data]
Project ID #3 (if sampling is for 2 different projects)			
Monitoring Location ID	*	*	Matches exactly the ID in Monitoring Location detail

			above
Activity ID	*	*	<b>Value:</b> Must be unique, see template for details; often use LABSAMPID on lab sheet or use [Mlname][YYYYMMDD][Lab or Field] -- important to put Lab or Field (or L/F) at end.
Activity Type	*	*	<b>Value:</b> <b>Sample-Routine</b> or <b>Field Msr/Obs</b> or <b>Sample-Composite</b>
Activity Media Name	*	*	<b>Value:</b> <b>Water</b>
Activity Media Subdivision Name	*	*	<b>Values:</b> <b>Surface Water</b> or <b>Wastewater Treatment Plant Effluent</b>
Activity Start Date	*	*	
Activity Start Time	*	*	
Activity Start Time Zone	*	*	MST, MDT; Required by WQCD
Sample Collection Method ID	*	*	<b>Values:</b> <b>GRAB, FIELD METER, SECCHI DISK, STAFF GAGE</b> ...
Activity Depth/Height Measure	Conditional	Conditional	Depth from surface; additional details can be mentioned in the Activity comment field
Activity Depth/Height Unit	Conditional	Conditional	Typically feet in Colorado
Activity Depth Altitude Reference Point			Can reference if below sea level or below grade or other reference point; recommended if Activity Depth/Height Measure populated
Activity Top Depth/Height Measure			
Activity Top Depth/Height Unit			
Activity Bottom Depth/Height Measure			
Activity Bottom Depth/Height Unit			
Sample Equipment Name (Type)	*	*	<b>Values:</b> <b>Water Bottle, Probe/Meter, Water Sampler (Other), Van Dorn Bottle</b> ...
Sample Equipment Comment			
Characteristic Name	*	*	<b>Values:</b> see lookup tables in template
Method Speciation	Conditional	Conditional	Required for certain characteristics (as N; as P)
Result Detection Condition	Conditional	Conditional	Not Detected, see lookups on template for other values
Result Value	*	*	In AWQMS, required to leave blank if Not Detected in Result Detection Condition
Result Unit	*	*	
Result Measure Qualifier	Conditional	Conditional	J, B, D, U ...
Result Sample Fraction	*	*	Dissolved, Total, ...

Result Status ID		*	Final (Required by AWQMS)
Statistical Base Code	Conditional	Conditional	Ex, Flow = Mean; will be utilized if trying to report mean daily flow, mean daily temperature, etc.
Result Value Type	*	*	Actual, Estimated, Calculated
Result Analytical Method ID	*	*	<b>Values: see lookup tables in template</b>
Result Analytical Method Context	*	*	USEPA, SM, etc.
Result Weight Basis	Conditional	Conditional	Conditionally required by WQCD (wet weight, dry weight)
Analysis Start Date	*	*	See CDSN AWQMS forum for guidance from WQCD if not available from your lab
Analysis Start Time	*	*	See CDSN AWQMS forum for guidance from WQCD if not available from your lab
Analysis Start Time Zone	*	*	MST, MDT; See CDSN AWQMS forum for guidance from WQCD if not available from your lab
Result Detection/Quantitation Limit Type1	*	*	MDL, LRL, LQL, IDL
Result Detection/Quantitation Limit Measure1	*	*	
Result Detection/Quantitation Limit Unit1	*	*	
Result Detection/Quantitation Limit Type2			Some will have two kinds (PQL, MDL,etc) on one lab sheet
Result Detection/Quantitation Limit Measure2			
Result Detection/Quantitation Limit Unit2			
Lab Sample Preparation Method ID	Maybe not REQ for REG85 but was for 2013 WQCD data call. Include to be sure.	*	Filter thru 0.45, etc.; "Default Prep"
Substance Dilution Factor		Conditional	Enter if on lab sheet
Laboratory	*	*	Lab name
Activity Conducting Organization			Used to specify an organization other than the data Org who conducted the sampling activity if desired.
LabSampleID			Not required, but is included on many Lab Output EDDs and is recommended to include if provided.

**Any organization with data that needs to be submitted to WQCD for Reg85 must also associate each Activity/Result with the REG85 Project ID with their Reg85 Activities/Results or else their data will not be included in the annual CDSN Reg85 data submittal to WQCD.**