

Submitting Measurement Data in CalWATRS

Since 2018, diverters subject to the water measurement regulation¹ must provide measurement data to support their annual reports, due January 31 of each year. This fact sheet provides guidance for submitting data in CalWATRS. (**Note:** large diversion submissions² are a separate requirement and are not discussed in this fact sheet.)

Water Years 2025 and 2026

For water years 2025 and 2026, you may submit measurement data in any format that can be opened using Microsoft Excel or Microsoft Access. You are **highly encouraged** to use the provided templates, but they will **not** be required until water year 2027. The table below describes when data must be collected and submitted for each water year:

Water Year	Data Collection Period	Annual Report Due
2025	October 1, 2024 through September 30, 2025	January 31, 2026
2026	October 1, 2025 through September 30, 2026	January 31, 2027
2027	October 1, 2026 through September 30, 2027	January 31, 2028

Templates

CalWATRS offers five templates for submitting data, described in the table below.

Templates are optional for water years 2025 and 2026. Questions in your annual report will guide you towards the appropriate templates. Refer to the [Examples](#) section at the end of this document for additional guidance on when to use each template.

Template Name	Type of Data	Who's Required to Use It
A1 - Diversion to Direct Use	Volume and rate of direct diversion	All diverters who directly divert
A2 - Diversion to Storage	Volume and rate of diversion to storage	All diverters who divert to storage
B - Storage Facility	Volume of water in a reservoir	All <i>large diverters</i> with a storage facility larger than 5,000 acre-feet
C - Withdrawal from Storage Facility to Place of Use	Volume and rate of stored water withdrawn for beneficial use	All diverters with a storage facility larger than 5,000 acre-feet
D - Release from Storage Facility	Volume and rate of water leaving a reservoir at its outlet	All diverters with a storage facility larger than 5,000 acre-feet

¹ Only diverters who divert more than 10 acre-feet per year are required to measure and submit data.

² Large diversion requirements are in addition to general measurement requirements and apply to diversions greater than 10,000 acre-feet per year or 30 cubic feet per second. Large diversion data is submitted weekly, whereas data files for general measurement requirements are submitted annually.

Measuring Devices

A measuring device is any equipment that provides a numerical output that can be used to determine the volume and flow rate of water diverted, impounded, withdrawn, or released (i.e., it doesn't have to directly measure volume or flow rate). All measuring devices must be registered in CalWATRS.

Submitting Data

Data files are uploaded through your annual report in CalWATRS by linking the data to a specific measuring device. This ensures that the data is properly associated with the correct measurement location and water right. Refer to the [Examples](#) section for guidance regarding specific scenarios for submitting measurement data.

Select Your Measuring Device

When completing your annual report for a water right, you must submit data for at least one measuring device. Select which measuring device(s) you are submitting data for by clicking the arrow next to the device ID number, opening the "reporting requirements" dropdown list, and choosing the template name that corresponds to the data being submitted for that device (the template names in this dropdown list match the template names in the table on the previous page). Leave the "reporting requirements" field blank for any devices you are **not** submitting data for. For water years 2025 and 2026, even if you are not using one of the provided templates to submit data, you must still select the template name that corresponds to the type of data being submitted.

Measuring devices/methods I am submitting data for
Please select the reporting requirement for at least 1 measurement device by expanding the rows in the table below.

Device ID number	Point of measurement ID	Status	Registered date	End date	Type	Device/Method Nickname	Device make	Approximate date of installation	Reporting requirements
 M031596		Active	10/01/2023		Flow Meter (propeller)	Chrysler Pump 1			
Device ID number M031596 Point of measurement ID Status Active Registered date Jan 20, 2010 End date Type Flow Meter (propeller) Device/Method Nickname Chrysler Pump 1 Device make Approximate date of installation Reporting requirements -Select Item- ☐ A1 - Diversion to Direct Use ☐ A2 - Diversion to Storage ☐ B - Storage Facility ☐ C - Withdrawal from Storage Facility to Block of Use									
 M034689		Active	10/01/2023		Flow Meter (propeller)				

[Need to add or change a device?](#)

Figure 1: When completing your annual report, select which devices you are submitting data for and the type of data associated with each device.

Upload Your Data

For each device and template name you select, you will be prompted to upload your measurement data. If needed, you can upload multiple data files for each device and template name. Select the device and template name from the “Measurement Device” dropdown list. Then click “upload new data files” to upload data.

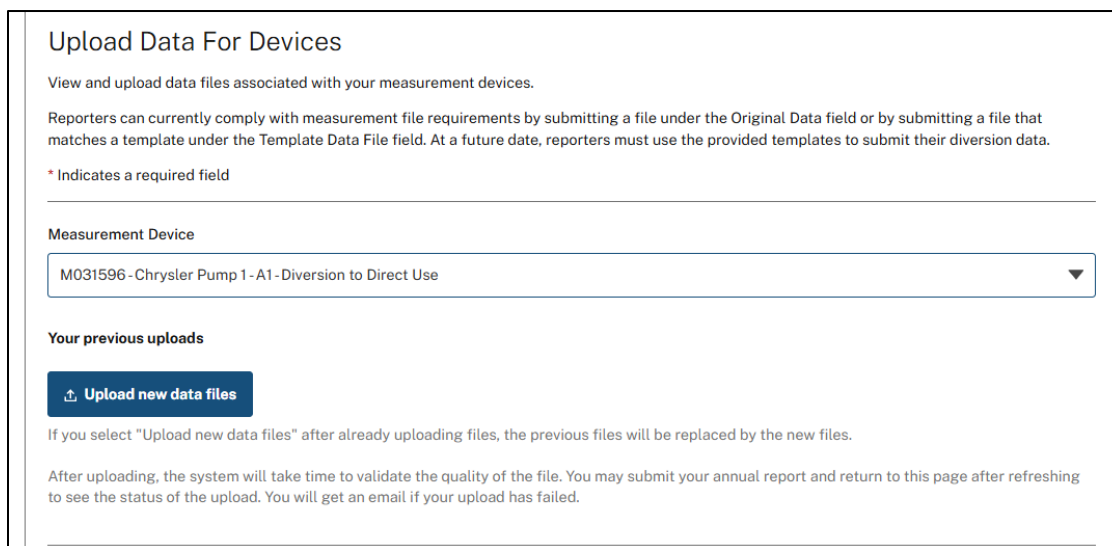


Figure 2: For each measuring device and template name selected on the previous page of the annual report, you will be prompted to upload the associated data files.

After clicking “upload new data files”, there are three options for uploading data for the selected measuring device and template name: (1) Template Data File, (2) Original Data, and (3) Supplemental Files.

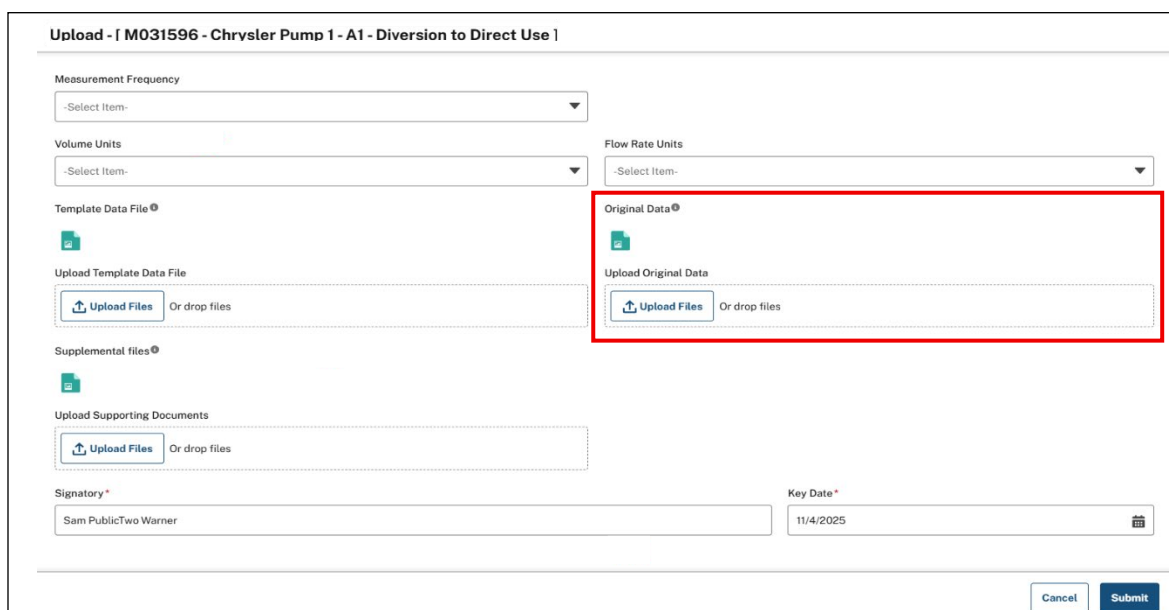


Figure 3: After selecting applicable measuring devices, there are three options for uploading materials in CalWATRS. For water years 2025 and 2026, use the “Original Data” option.

Water Years 2025 and 2026: For water years 2025 and 2026, data **must** be uploaded using the “Original Data” option, outlined in red in Figure 3. If you would like to use the provided templates (which are **optional** for these water years), please also upload them using the “Template Data File” option.

Template Data File: This section is **optional** for water years 2025 or 2026. Beginning water year 2027, this is where you will be required to upload your data files. Only files based on the provided templates will be accepted.

Original Data: This section is **required** for water years 2025 or 2026. Beginning water year 2027, this section will be optional and may be used if you would also like to upload your raw device output or data in formats other than the provided templates.

Supplemental Files: This section is **optional**. If you would like to upload any additional information, including calibration information, conversion formulas, explanations, etc., you may do so using this option. This is an additional upload to the required measurement data.

Examples

The following examples offer further guidance on selecting the appropriate devices and templates for uploading measurement data. **For water years 2025 and 2026, refer to Examples 1, 2, and 3.** Beginning water year 2027, refer to Examples 1, 2, 4, 5, and 6.

Example 1: Device at the Point of Diversion

Scenario: A flow meter (or other type of measuring device) is located at a point of diversion (POD) and only one measuring device is used to measure the diversion.

Select Your Measuring Device: In CalWATRS, upload measurement data by selecting the device and choosing “A1 - Diversion to Direct Use” and/or “A2 - Diversion to Storage”, as applicable, from the reporting requirements dropdown list (Figure 1).

Upload Your Data: If using the provided templates (which are **not** required until water year 2027), convert the raw device output into the volume and rate of direct diversion and/or diversion to storage. For each data file, select the measuring device and template name from the dropdown list on the “Upload Data for Devices” screen (Figure 2) and click “upload new data files”. On the upload screen (Figure 3), use the appropriate upload option to submit your data file.

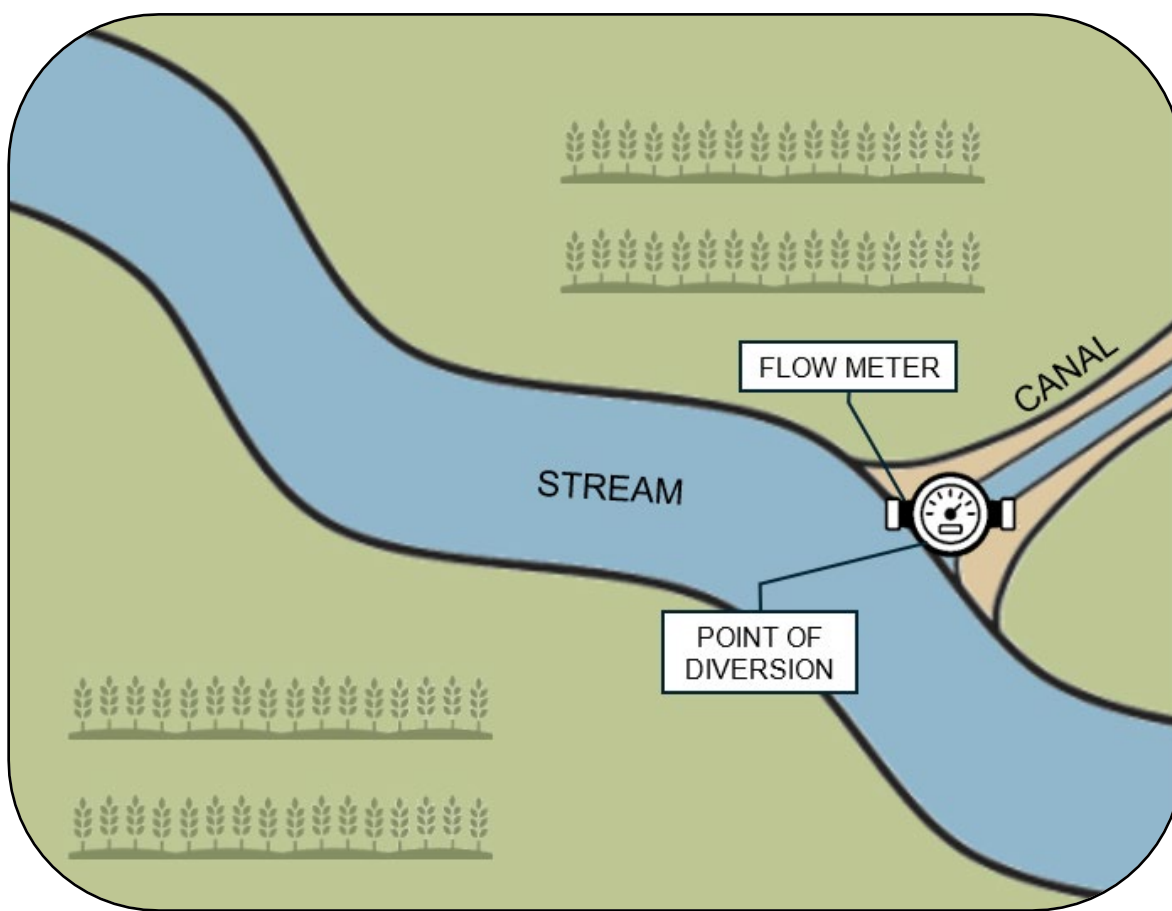


Figure 4: In CalWATRS, submit measurement data by selecting the flow meter as your measuring device.

Example 2: Stream Gages Upstream and Downstream of the Point of Diversion

Scenario: Stream gages (or other types of measuring devices) are located upstream and downstream of a POD. You calculate the volume and rate of diversion using data from both devices (e.g., by converting water elevation at each gage to cross-sectional flow area and calculating the difference in flow upstream and downstream of the POD).

Select Your Measuring Device: Both gages are considered measuring devices. However, when submitting measurement data, you only need to **select one gage** to submit each unique data file. In general, you should select the gage that is closest to the POD. In Figure 5 below, the downstream gage is closest to the POD and should be selected when submitting data files. In CalWATRS, upload measurement data by choosing “A1 - Diversion to Direct Use” and/or “A2 - Diversion to Storage”, as applicable, from the reporting requirements dropdown list for the selected device (Figure 1).

Upload Your Data: Upload your data as described in [Example 1](#).

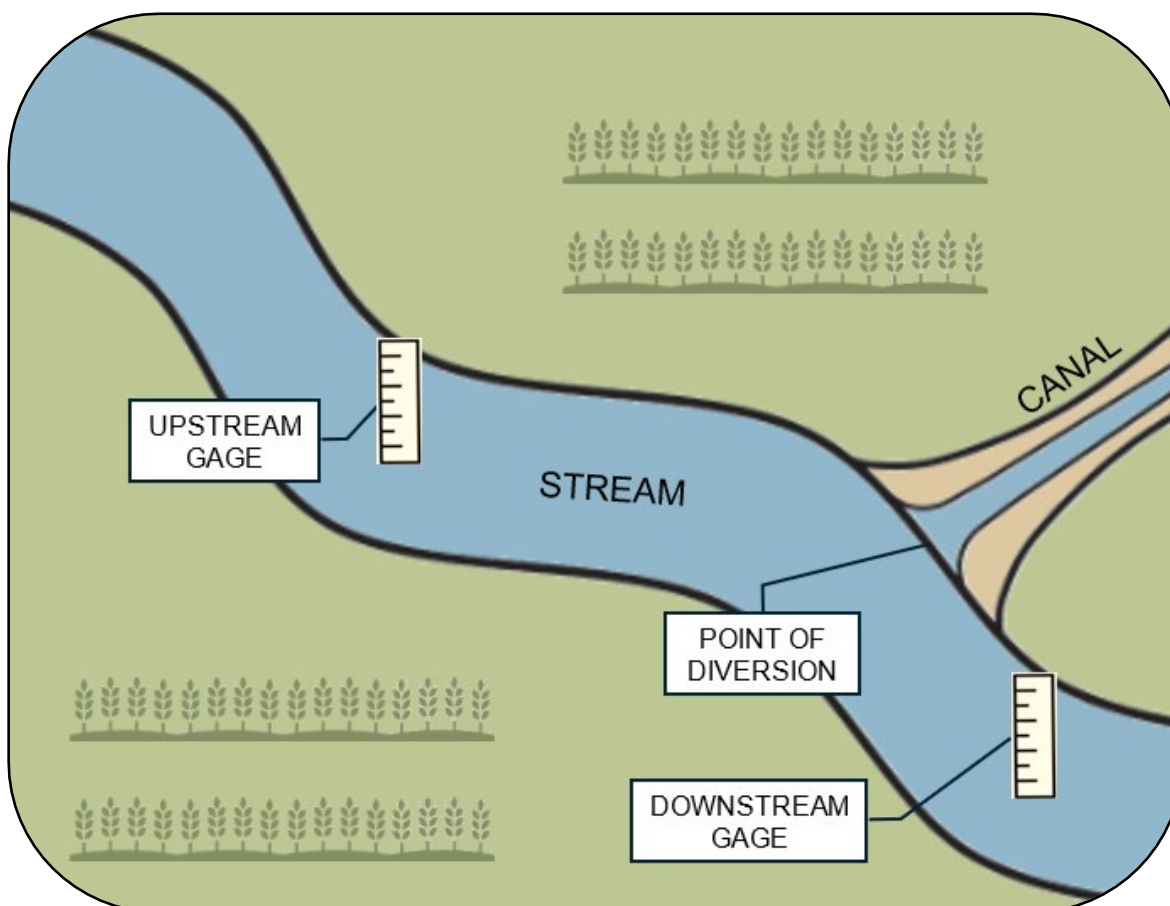


Figure 5: In CalWATRS, submit measurement data by selecting the device that is closest to the POD. In this image, the downstream gage is closest to the POD and should be used to submit data files.

Example 3: Reservoirs (*Water Year 2025 and 2026 Annual Reports*)

Refer to [Examples 4](#), [5](#), and [6](#) for measurements of reservoirs for water year 2027 annual reports and beyond

Scenario: Flow meters (or other types of measuring devices) are located at the outlet of a reservoir and at the location where water is withdrawn from the reservoir and diverted into a canal. Staff gages (or other types of measuring devices) are located in the reservoir. You calculate the volume and rate of diversion by using data from multiple devices (e.g., by measuring changes in impoundment and water released from the reservoir).

Select Your Measuring Device: All flow meters and gages are considered measuring devices. However, when submitting measurement data, you only need to **select one measuring device** to submit each unique data file, as described below. Not all types of data listed below apply to every water right.

IF YOU DIVERTED TO STORAGE AND/OR DIRECTLY DIVERTED: You may select **any** device that is representative of the location of the reservoir or point of diversion. In CalWATRS, upload measurement data by selecting the device and choosing “A1 - Diversion to Direct Use” and/or “A2 - Diversion to Storage”, as applicable, from the reporting requirements dropdown list (Figure 1).

IF YOU WITHDREW FROM STORAGE: Withdrawals from storage include any previously stored water that is removed from the reservoir for beneficial use. Water may be withdrawn at any location in the reservoir (i.e., not just at the outlet). In Figure 6, water is withdrawn and measured at Flow Meters 1 and 2. In CalWATRS, upload measurement data by selecting Flow Meter 1 for withdrawals into the canal and Flow Meter 2 for withdrawals at the outlet. For each device, choose “C - Withdrawal from Storage Facility to Place of Use” from the reporting requirements dropdown list (Figure 1).

IF YOU MADE RELEASES FROM THE RESERVOIR: Releases from reservoirs encompass all water leaving the reservoir at the outlet, including water not previously stored and water not beneficially used under the water right. In CalWATRS, upload measurement data by selecting the measuring device located nearest to the outlet (Flow Meter 2 for the example shown in Figure 6) and choosing “D - Release from Storage Facility” from the reporting requirements dropdown list (Figure 1).

Upload Your Data: If using the provided templates (which are **not** required until water year 2027), convert the raw device output into the volume and rate of withdrawal for beneficial use, release from the reservoir, diversion to storage, and direct diversion, as applicable. For each data file, select the measuring device and template name from the dropdown list on the “Upload Data for Devices” screen (Figure 2) and click “upload new

data files". On the upload screen (Figure 3), use the appropriate upload option to submit your data file.

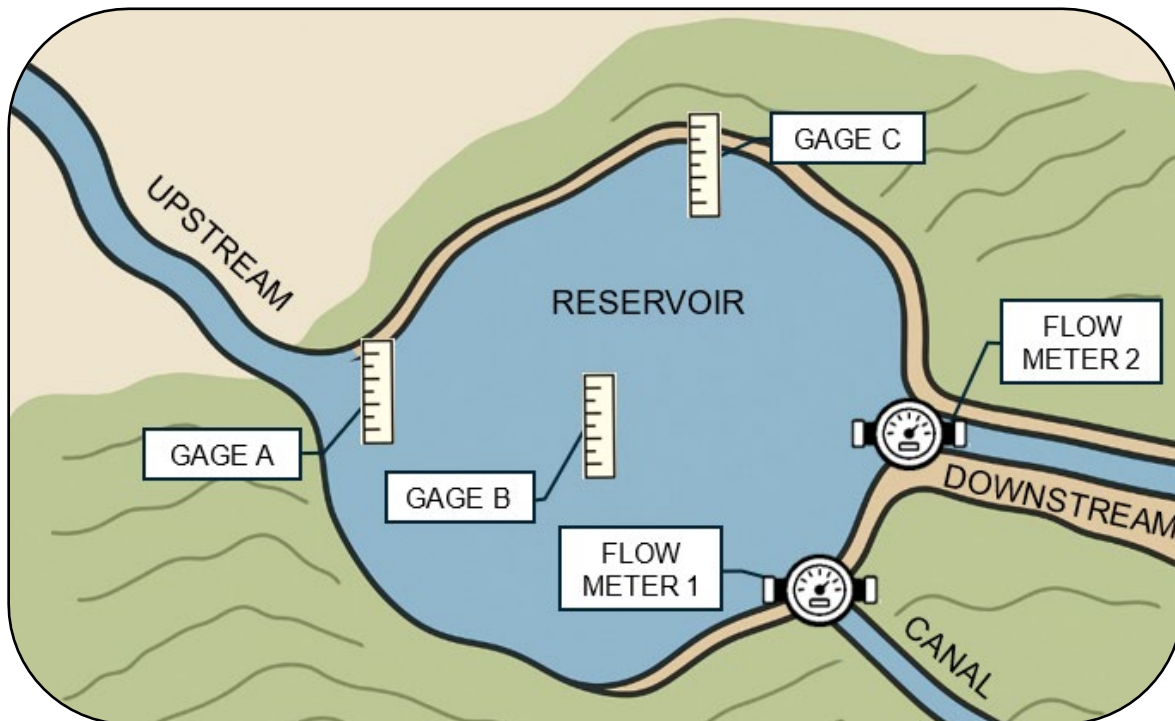


Figure 6: In CalWATRS, submit measurement data by selecting the appropriate device for direct diversions, diversions to storage, withdrawals from storage, and releases from the reservoir, respectively. You only need to submit each data file once (i.e., not once for each device), but you may have multiple data files. In this example, (assuming there is no direct diversion) there will be one data file for diversion to storage, two data files for withdrawals from storage, and one data file for releases from the reservoir.

Example 4: Reservoirs (5,000 Acre-Foot Capacity or Smaller) – Measuring at Inlet and Outlet

Applies to water year 2027 annual reports and beyond

Scenario: Flow meters (or other types of measuring devices) are located at the inlet and outlet of a reservoir. You calculate the volume and rate of diversion by using data from both devices (e.g., by subtracting outflow from inflow to calculate storage). The reservoir has a **capacity of 5,000 acre-feet or less**. (Beginning water year 2027, you will **not** need to submit data for withdrawals from storage or releases from the reservoir for reservoirs with a capacity of 5,000 acre-feet or less, just diversions to storage and/or direct diversions, as applicable.)

Select Your Measuring Device: Both flow meters are considered measuring devices. However, when submitting measurement data, you only need to **select one flow meter** to submit each unique data file. In Figure 7 below, either of the two flow meters may be selected when submitting data files. In CalWATRS, upload measurement data by selecting either device and choosing “A1 - Diversion to Direct Use” and/or “A2 - Diversion to Storage”, as applicable, from the reporting requirements dropdown list (Figure 1).

Upload Your Data: Upload your data as described in [Example 1](#).

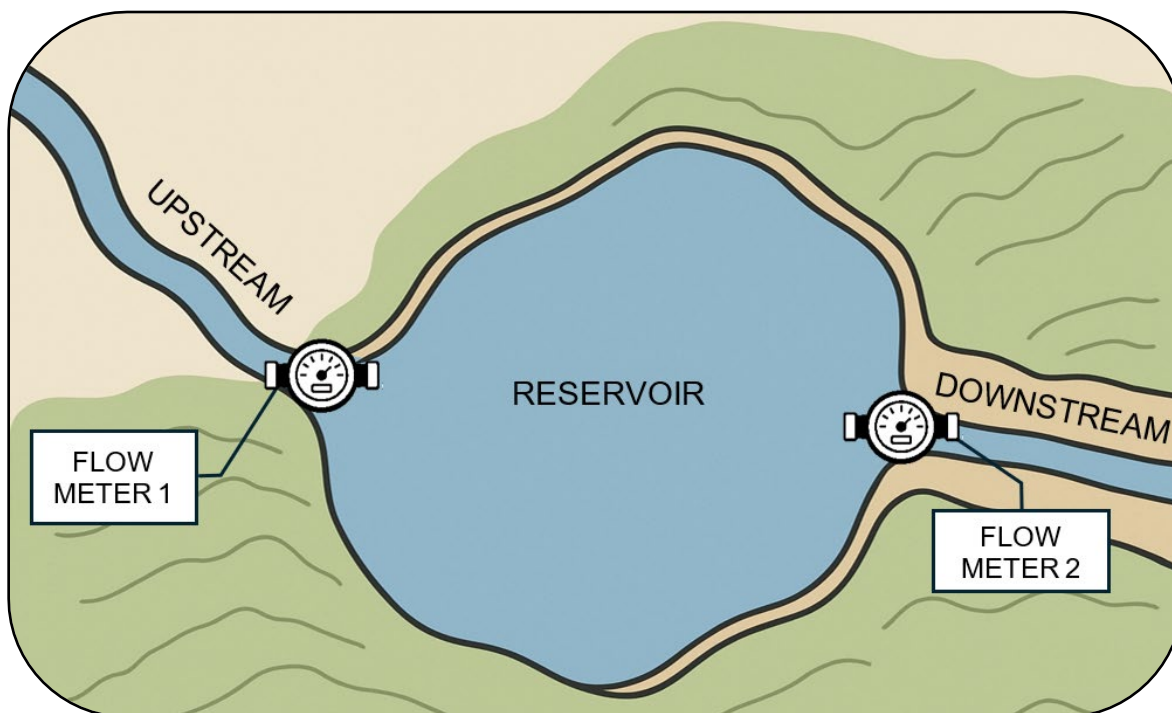


Figure 7: In CalWATRS, submit measurement data by selecting either Flow Meter 1 or Flow Meter 2. Although multiple devices may be used to calculate the required data, you only need to submit the data once, by selecting one device per unique data file.

Example 5: Reservoirs (5,000 Acre-Foot Capacity or Smaller) – Multiple Devices

Applies to water year 2027 annual reports and beyond

Scenario: A flow meter (or other types of measuring devices) is located at the outlet of a reservoir. Staff gages (or other types of measuring devices) are located in the reservoir. You calculate the volume and rate of diversion by using data from multiple devices (e.g., by measuring changes in impoundment and water released from the reservoir). The reservoir has a **capacity of 5,000 acre-feet or less**. (Beginning water year 2027, you will **not** need to submit data for withdrawals from storage or releases from the reservoir for reservoirs with a capacity of 5,000 acre-feet or less, just diversions to storage and/or direct diversions, as applicable.)

Select Your Measuring Device: All flow meters and gages are considered to be measuring devices. However, when submitting measurement data, you only need to **select one measuring device** to submit each unique data file. You may select **any** device that is representative of location of the reservoir or point of diversion. In CalWATRS, upload measurement data by selecting the device and choosing “A1 - Diversion to Direct Use” and/or “A2 - Diversion to Storage”, as applicable, from the reporting requirements dropdown list (Figure 1).

Upload Your Data: Upload your data as described in [Example 1](#).

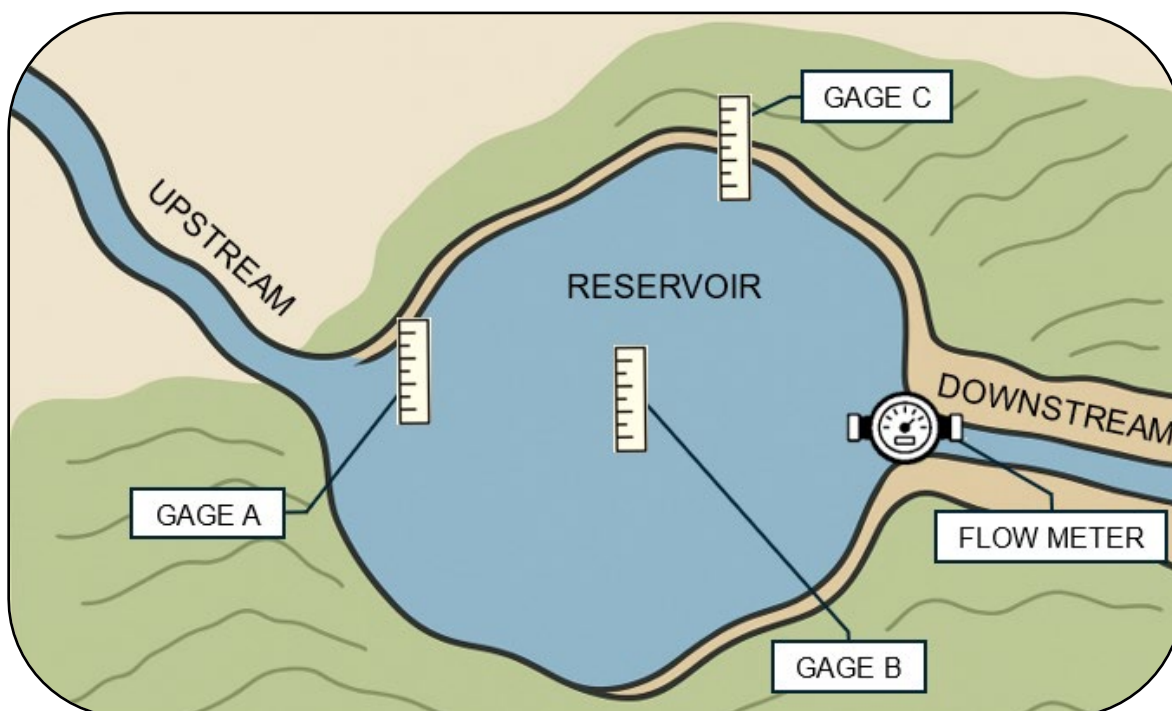


Figure 8: In CalWATRS, submit measurement data by selecting any one of the devices used to calculate volume and rate of diversion. Although multiple devices may be used to calculate the required data, you only need to submit the data once, by selecting one device per unique data file. In this example, either Gage A, Gage B, Gage C, or the flow meter may be selected when uploading measurement data.

Example 6: Reservoirs (Capacity **Greater than 5,000 Acre-Feet**)

Applies to water year 2027 annual reports and beyond

Scenario: Flow meters (or other types of measuring devices) are located at the outlet of a reservoir and at the location where water is withdrawn from the reservoir and diverted into a canal. Staff gages (or other types of measuring devices) are located in the reservoir. You calculate the volume and rate of diversion by using data from multiple devices (e.g., by measuring changes in impoundment and water released from the reservoir). The reservoir has a **capacity greater than 5,000 acre-feet**. (Beginning water year 2027, you **must also** submit data for withdrawals from storage or releases from the reservoir for reservoirs with a capacity greater than 5,000 acre-feet, in addition to data for diversions to storage and/or direct diversions, as applicable.)

Select Your Measuring Device: All flow meters and gages are considered measuring devices. However, when submitting measurement data, you only need to **select one measuring device** to submit each unique data file, as described below.

IF YOU DIVERTED TO STORAGE AND/OR DIRECTLY DIVERTED: Select measuring devices for diversions to storage and/or direct diversions as described in [Example 5](#).

IF YOU WITHDREW FROM STORAGE: Withdrawals from storage include any previously stored water that is removed from the reservoir for beneficial use. Water may be withdrawn at any location in the reservoir (i.e., not just at the outlet). In Figure 9, water is withdrawn and measured at Flow Meters 1 and 2. In CalWATRS, upload measurement data by selecting Flow Meter 1 for withdrawals into the canal and Flow Meter 2 for withdrawals at the outlet. For each device, choose “C - *Withdrawal from Storage Facility to Place of Use*” from the reporting requirements dropdown list (Figure 1).

IF YOU MADE RELEASES FROM THE RESERVOIR: Releases from reservoirs encompass all water leaving the reservoir at the outlet, including water not previously stored and water not beneficially used under the water right. In CalWATRS, upload measurement data by selecting the measuring device located nearest to the outlet (Flow Meter 2 for the example shown in Figure 9) and choosing “D - *Release from Storage Facility*” from the reporting requirements dropdown list (Figure 1).

Upload Your Data: If using the provided templates (which are **not** required until water year 2027), convert the raw device output into the volume and rate of withdrawal for beneficial use, release from the reservoir, diversion to storage, and direct diversion, as applicable. For each data file, select the measuring device and template name from the dropdown list on the “Upload Data for Devices” screen (Figure 2) and click “upload new data files”. On the upload screen (Figure 3), use the appropriate upload option to submit your data file.

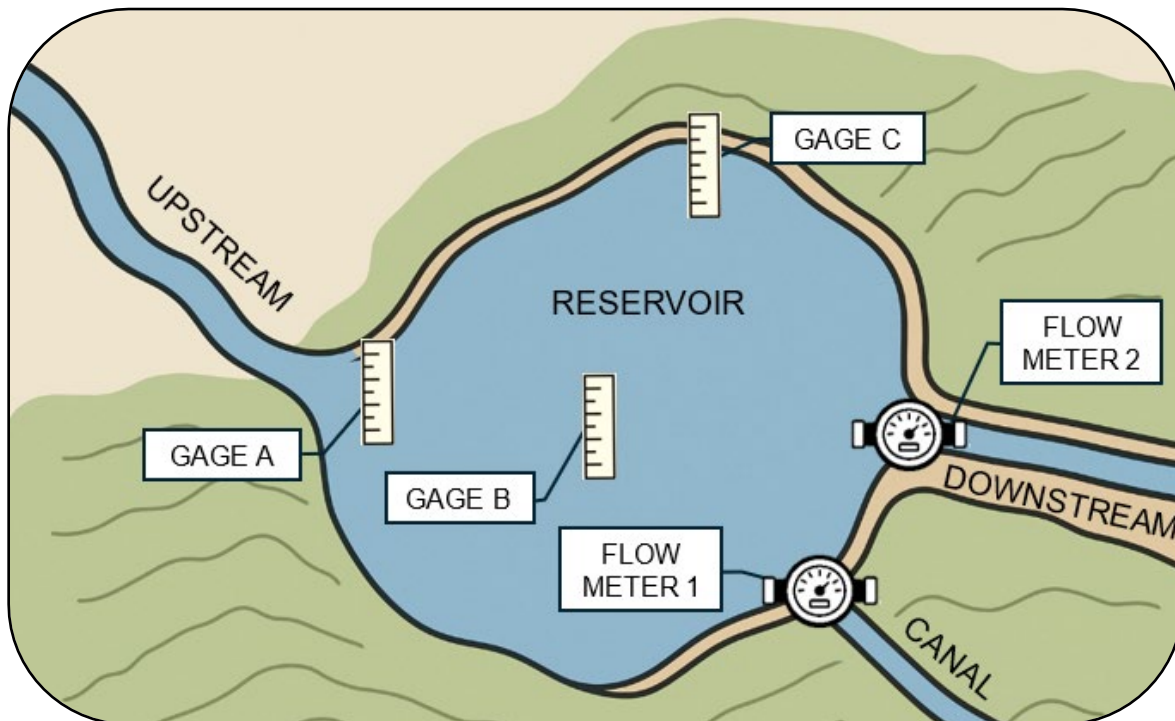


Figure 9: In CalWATRS, submit measurement data by selecting the appropriate device for direct diversions, diversions to storage, withdrawals from storage, and releases from the reservoir, respectively. You only need to submit each data file once (i.e., not once for each device), but you may have multiple data files. In this example, (assuming there is no direct diversion) there will be one data file for diversion to storage, two data files for withdrawals from storage, and one data file for releases from the reservoir.