

## Understanding Water Budgets

### Small group exercise for in-person training

#### Goal:

Participants understand the terms their water budget uses to describe the inflows and outflows in their basin, visualize those sources, and get hands-on experience with this information source. Participants may also begin to see some of the applications and limitations of a water budget once they start working with it.

#### Materials/setup:

- This exercise should be done in groups of approximately 4-8, so that everyone is able to participate
- Printed copies of a year or more of a basin's water budget, including category names and amount of inflow and outflow for each. To make this exercise more effective, format the printout to be easy to read. Consider rounding data to the nearest whole number, shading inflow columns to make them distinct from outflows, and getting rid of confusing and extraneous columns or information. Provide the total for each column so participants don't spend time adding each month's numbers. Here is a [sample](#).
- Printout of a conceptual water budget, large enough for the whole group to use. Here is a [sample](#).
- Markers
- Calculators
- Optional but encouraged: water budget glossary. A glossary for terms used by the California Central Valley Groundwater-Surface Water Simulation Model (C2VSim) can be found [here](#).

#### How-to:

1. Walk participants through water budget spreadsheet, explaining how to read it. Let them know they are going to add the inflows and outflows onto the conceptual water budget to visually show where the sources are.
2. Participants label inflow and outflow sources from budget on the image with arrows indicating which way the flow could potentially go. [Click here](#) for an example of how it may look when completed.
3. Identify biggest inflows and outflows. This could be interesting to discuss if you have time, especially if you are using the actual water budget for the group's basin.
4. Determine net overdraft or surplus for the period of time you are looking at.
  - a. Assign half the group to add up inflows, half to add up outflows. This ensures participants can easily check their totals against one another.
  - b. Inflow group announces their total.
  - c. Outflow group announces their total.
  - d. Subtract inflows from outflows to get net overdraft or surplus. Remind folks of the time period they are looking at. You may find gaps in the data to explain or just acknowledge. This is a good time for discussion.