

2020 Annual Report - Part B. Groundwater Extraction Methods Reporting

Basin Number	Water Year	Meters Volume (AF)	Meters Description	Meters Type	Meters Accuracy (%)	Meters Accuracy Description	Electrical Records Volume (AF)	Electrical Records Description	Electrical Records Type	Electrical Records Accuracy (%)	Electrical Records Accuracy Description	Land Use Volume (AF)	Land Use Description	Land Use Type	Land Use Accuracy (%)
5-022.14	2019 (Oct. 2018 - Sept. 2019)	169591	Meters and comparable measuring devices operated by local water agencies, water purveyors and city water departments in compliance with AWWA and other relevant standards	Direct	0-5 %	These data were collected from well meters by experienced water agency staff following monitoring protocols for urban and agricultural water supply. Meters are considered to be well-maintained and tested; therefore, reported data meet high accuracy levels in compliance with AWWA and other relevant standards. In accordance with these standards for water supply, meter accuracy is assumed to range between 0% and 5%.	0					1114592	IWFM Demand Calculator (IDC) in C2VSimFG-Kern	Estimate	10-20 %

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Land Use Accuracy Description	Groundwater Model Volume (AF)	Groundwater Model Description	Groundwater Model Type	Groundwater Model Accuracy (%)	Groundwater Model Accuracy Description	Other Method(s) Volume (AF)	Other Method(s) Description	Other Method(s) Type	Other Method(s) Accuracy (%)	Other Method(s) Accuracy Description
<p>Estimated groundwater extractions is based on simulation results of the IDC tool within C2VSimFG-Kern model. The water balance accuracy of the groundwater model is considered to be medium, approximately ranging between 10% and 20%. Input data based on metered data is assumed to have an accuracy of 0% to 5%. The agricultural pumping, which is the largest component of groundwater extraction, are estimated using the ITRC-METRIC based ET Rates. ITRC (2020) lists the accuracy of the ET measurements as ranging from 7% to 10%. Land use is based on Kern County Agricultural Commissioner annual land use data including crop type. Soil properties are assumed are based on local soil survey data which have a higher level of uncertainty. Applying a weighted average of these inputs to the overall water budget produces a relative accuracy for the land use calculation for agricultural groundwater extractions ranging between 10% and 20%.</p>	0					0				

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Field Name	Description	Required Field?
Basin Number	The basin number of the basin covered by the Annual Report. Select the basin number from the dropdown list.	Yes
Water Year	The water year (October 1 to September 30) covered in the Annual Report. Select the water year from the dropdown list.	Yes
Meters Volume (AF)	The volume of groundwater extractions calculated using the meters measurement method for the selected water year in acre-feet (AF).	Yes
Meters Description	Provide a description of the meters measurement method used to calculate the volume of groundwater extractions for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Meters Volume (AF)" column.
Meters Type	Identify whether the meters measurement method was direct or estimate for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Meters Volume (AF)" column.
Meters Accuracy (%)	The accuracy, defined as a percent (%), of the volume of groundwater extractions calculated using the meters measurement method for the selected water year. If accuracy was not calculated as a percent, select "Other".	Conditional: Yes, if a volume other than 0 AF is entered into the "Meters Volume (AF)" column.
Meters Accuracy Description	Provide a description of how percent accuracy was calculated or if "Other" was selected, provide the calculated accuracy value and provide a description of how the "Other" accuracy value was calculated.	Conditional: Yes, if a volume other than 0 AF is entered into the "Meters Volume (AF)" column.
Electrical Records Volume (AF)	The volume of groundwater extractions calculated using the electrical records measurement method for the selected water year in acre-feet (AF).	Yes
Electrical Records Description	Provide a description of the electrical records measurement method used to calculate the volume of groundwater extractions for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Electrical Records Volume (AF)" column.
Electrical Records Type	Identify whether the electrical records measurement method was direct or estimate for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Electrical Records Volume (AF)" column.
Electrical Records Accuracy (%)	The accuracy, defined as a percent (%), of the volume of groundwater extractions calculated using the electrical records measurement method for the selected water year. If accuracy was not calculated as a percent, select "Other".	Conditional: Yes, if a volume other than 0 AF is entered into the "Electrical Records Volume (AF)" column.
Electrical Records Accuracy Description	Provide a description of how percent accuracy was calculated or if "Other" was selected, provide the calculated accuracy value and provide a description of how the "Other" accuracy value was calculated.	Conditional: Yes, if a volume other than 0 AF is entered into the "Electrical Records Volume (AF)" column.
Land Use Volume (AF)	The volume of groundwater extractions calculated using the land use measurement method for the selected water year in acre-feet (AF).	Yes

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Land Use Description	Provide a description of the land use measurement method used to calculate the volume of groundwater extractions for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Land Use Volume (AF)" column.
Land Use Type	Identify whether the land use measurement method was direct or estimate for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Land Use Volume (AF)" column.
Land Use Accuracy (%)	The accuracy, defined as a percent (%), of the volume of groundwater extractions calculated using the land use measurement method for the selected water year. If accuracy was not calculated as a percent, select "Other".	Conditional: Yes, if a volume other than 0 AF is entered into the "Land Use Volume (AF)" column.
Land Use Accuracy Description	Provide a description of how percent accuracy was calculated or if "Other" was selected, provide the calculated accuracy value and provide a description of how the "Other" accuracy value was calculated.	Conditional: Yes, if a volume other than 0 AF is entered into the "Land Use Volume (AF)" column.
Groundwater Model Volume (AF)	The volume of groundwater extractions calculated using the groundwater model measurement method for the selected water year in acre-feet (AF).	Yes
Groundwater Model Description	Provide a description of the groundwater model measurement method used to calculate the volume of groundwater extractions for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Groundwater Model Volume (AF)" column.
Groundwater Model Type	Identify whether the groundwater model measurement method was direct or estimate for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Groundwater Model Volume (AF)" column.
Groundwater Model Accuracy (%)	The accuracy, defined as a percent (%), of the volume of groundwater extractions calculated using the groundwater model measurement method for the selected water year. If accuracy was not calculated as a percent, select "Other".	Conditional: Yes, if a volume other than 0 AF is entered into the "Groundwater Model Volume (AF)" column.
Groundwater Model Accuracy Description	Provide a description of how percent accuracy was calculated or if "Other" was selected, provide the calculated accuracy value and provide a description of how the "Other" accuracy value was calculated.	Conditional: Yes, if a volume other than 0 AF is entered into the "Groundwater Model Volume (AF)" column.
Other Method(s) Volume (AF)	The volume of groundwater extractions calculated using other measurement method(s) for the selected water year in acre-feet (AF).	Yes
Other Method(s) Description	Provide a description of the other measurement method(s) used to calculate the volume of groundwater extractions for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Other Method Volume (AF)" column.
Other Method(s) Type	Identify whether the other measurement method(s) was direct or estimate for the selected water year.	Conditional: Yes, if a volume other than 0 AF is entered into the "Other Method Volume (AF)" column.
Other Method(s) Accuracy (%)	The accuracy, defined as a percent (%), of the volume of groundwater extractions calculated using the other measurement method(s) for the selected water year. If accuracy was not calculated as a percent, select "Other".	Conditional: Yes, if a volume other than 0 AF is entered into the "Other Method Volume (AF)" column.
Other Method(s) Accuracy Description	Provide a description of how percent accuracy was calculated or if "Other" was selected, provide the calculated accuracy value and provide a description of how the "Other" accuracy value was calculated.	Conditional: Yes, if a volume other than 0 AF is entered into the "Other Method Volume (AF)" column.