

A photograph of a concrete weir structure in a stream. On top of the weir is a white measuring box with a vertical scale attached to its side. The stream flows over the weir, and the water is clear. The background shows dry grass and some green plants.

# SB88 AND EMERGENCY REGULATION FOR MEASURING AND REPORTING WATER DIVERSIONS

## AVERAGE COST OF MEASUREMENT



DIVISION OF WATER RIGHTS  
STATE WATER RESOURCES CONTROL BOARD  
FEBRUARY 29, 2016

# Measurement Requirements

Type of Diversion	Installation Deadline	Required Accuracy	Required Monitoring	Installation And Certification
Direct Diversion $\geq$ 1000 afa Storage $\geq$ 1000 af	January 1, 2017	10%	Hourly	Engineer/Contractor/ Professional
Direct Diversion $\geq$ 100 afa Storage $\geq$ 200 af	July 1, 2017	10%	Daily	Engineer/Contractor/ Professional
Direct Diversion $>$ 10 afa Storage $\geq$ 50 af	January 1, 2018	15%	Weekly	Individual experienced with measurement and monitoring
Storage $>$ 10 af	January 1, 2018	15%	Monthly	Individual experienced with measurement and monitoring

# AVERAGE COST OF MEASUREMENT DEVICE BY CATEGORY

Category		Device/Service	Cost Range	
			Low	High
Reservoir Storage (acre-feet)	10 < storage < 200 (78% of measured Reservoirs)	Staff Gauge	\$300	\$800
Direct Diversion (acre-feet/year)	10 af < diversion < 100 af (42% of measured PODs)	In-line flow meter	\$1,200	\$1,800
		In-line flow meter / Open Channel	\$2,000	\$6,000
	100 Af ≤ diversion < 1,000 af (34% of measured PODs)	Data logger	\$250	\$600
		Total	\$2,250	\$6,600

## Notes

1. The cost of the measurement device assumes the device is installed by a qualified individual.
2. The cost will depend whether the diverter can use an existing device or needs to install a new one.
3. The costs of measuring and monitoring water use are case specific and can vary widely based on the specific situation.

# AVERAGE COST OF MEASUREMENT DEVICE BY CATEGORY - STORAGE

Category		Device/Service	Cost Range	
			Low	High
Reservoir Storage (acre-feet)	10 af < storage < 50 af (63%)	<b>Staff Gauge</b>	<b>\$300</b>	<b>\$500</b>
	50 ≤ storage < 200 (15%)	<b>Staff Gauge</b>	<b>\$400</b>	<b>\$800</b>
	200 af ≤ storage < 10,000 af (14%)	Pressure transducer	\$300	\$1,000
		Staff Gauge	\$400	\$800
		Data logger	\$250	\$500
		<b>Total</b>	<b>\$950</b>	<b>\$2,300</b>
	storage ≥ 10,000 af (8%)	Pressure transducer	\$500	\$1,500
		Staff Gauge	\$600	\$1,500
		Data logger	\$500	\$800
		Telemetry	\$1,500	\$2,000
		<b>Total</b>	<b>\$3,100</b>	<b>\$5,800</b>

# AVERAGE COST OF MEASUREMENT DEVICE BY CATEGORY – DIRECT DIVERSION

Category		Device/Service	Cost Range	
			Low	High
Direct Diversion (acre-feet/year)	10 Af < diversion < 100 af (41%)	<b>In-line flow meter</b>	<b>\$1,200</b>	<b>\$1,800</b>
	100 af ≤ diversion < 1,000 af (34%)	In-line flow meter / Open Channel	\$2,000	\$6,000
		Data logger	\$250	\$600
		<b>Total</b>	<b>\$2,250</b>	<b>\$6,600</b>
	1,000 af ≤ diversion < 10,000 af (14%)	Open Channel Flow Device	\$5,000	\$10,000
		Pressure transducer	\$300	\$1,000
		Staff Gauge	\$300	\$500
		Data logger	\$500	\$800
		<b>Total</b>	<b>\$6,100</b>	<b>\$12,300</b>
	diversion ≥ 10,000 af (11%)	Open Channel Flow Device	\$7,500	\$15,000
		Pressure transducer	\$300	\$1,000
		Staff Gauge	\$300	\$500
		Data logger	\$500	\$800
		Telemetry	\$1,200	\$1,800
		<b>Total</b>	<b>\$9,800</b>	<b>\$19,100</b>