Location/Question nu	11287500 DON PEDRO RES NR LA GRANGE	11289000 MODESTO CN NR LA GRANGE	11289500 TURLOCK CN NR LA GRANGE	11289650 TUOLUMNE R BL LAGRANGE DAM NR LAGRANGE CA	11290000 TUOLUMNE R A MODESTO CA	11275500 HETCH HETCHY RES A HETCH HETCHY CA	11277200 CHERRY LK NR HETCH HETCHY CA	11277500 LK ELEANOR NR HETCH HETCHY CA
M1	Water Pressure Transducer	Float Tape shaft encoder	Acoustic Velocity Meter	Water Pressure Transducer	Water Pressure Transducer	Water Pressure Transducer	Water Pressure Transducer	Water Pressure Transducer
M2	PS2	none	AVM	none	none	none	none	none
M3	Pressure Transducer	Float Tape shaft encoder	Acoustic Velocity Meter	Bubbler/Pressure Transducer	Bubbler/Pressure Transducer	submersible transducer	Bubbler/Transducer	Bubbler/Transducer
M4	Para Scientific	Design Analysis	Accusonic	Design Analysis	Sutron	Rittmeyer	Paroscientific	Design Analysis
M5	64904	1016	cooperator provided	1282	908583			
M6	PS-2	H-510	8510	H-350 Lite / H355	Accububbler	150 PSI	PS2/100 PSI	H-350 Lite/H-355
M7	June-09	Jun-09	2013	Jul-10				
M8	none	none	none	none	none	none	none	none
M9	2/16/2017	1/11/2017	1/11/2017	2/24/2017	2/17/2017	4/24/2018 4/42018		4/4/2018
M10	+/- 0.02 feet	+/- 0.02 feet	+/- 0.02 feet	+/- 0.02 feet	+/- 0.02 feet	0.02 feet	.002 feet	.002 feet
M11	Comparison to surveyed plate	Comparison to surveyed plate	Comparison to surveyed plate	Comparison to surveyed plate	Comparison to surveyed plate	Comparison to surveyed plate	comparison to surveyed plate	comparison to surveyed plate
M12	8 week interval	8 week interval	8 week interval	8 week interval	8 week interval	8 week interval	8 week interval	8 week interval
M13	USGS	USGS	USGS	USGS	USGS	USGS	USGS	USGS
M14	916-381-0207	916-381-0208	916-381-0209	916-381-0210	916-381-0211	916-381-0207	916-381-0207	916-381-0207
M15	drparker@usgs.gov	drparker@usgs.gov	drparker@usgs.gov	drparker@usgs.gov	drparker@usgs.gov	drparker@usgs.gov	drparker@usgs.gov	drparker@usgs.gov
M16	Federal Agency	Federal Agency	Federal Agency	Federal Agency	Federal Agency	Federal Agency	Federal Agency	Federal Agency
M17								
M18	Data Logger	Data Logger	Data Logger	Data Logger	Data Logger	Data Logger	Data Logger	Data Logger
M19	Sutron	Design Analysis Associates	Sutron	Sutron	Sutron	Sutron	Sutron	Sutron
M20	807526	2087	909572	909572	1009591			
M21	SL2	H-222	SL2	SL2	SL2	SL2	SL2	SL2
M22	feet	feet	cubic feet per second	feet	feet	feet	feet	feet
M23	15 minutes	15 minutes	15 minutes	15 minutes	15 minutes	15 minutes	15 minutes	15 minutes
M24	none	none	none	none	none	none	none	none
M25								
M26	https://waterdata.usgs.gov/nwis/uv?site_no=11287500	https://waterdata.usgs.gov/nwis/uv?site_no=11289000	https://waterdata.usgs.gov/nwis/uv?site_no=11289500	https://waterdata.usgs.gov/nwis/uv?site_no=11289650	https://waterdata.usgs.gov/nwis/uv?site_no=11290000	https://waterdata.usgs.gov/nwis/uv?site_no=11275500	https://waterdata.usgs.gov/nwis/uv?site_no=11277200	https://waterdata.usgs.gov/nwis/uv?site_no=11277500
M27								
M28								

APPENDIX TO LICENSE MEASUREMENT REPORT
M001319

Questions M13-M17:

The measurement method used relies upon authoritative data and gaging instrumentation owned and operated by the United States Geological Survey (gage nos. 11287500, 11289000, 11289500, 11289650), and is based upon standard, uniform, best practice for deriving reservoir inflow, which is the sum of the change in reservoir storage, reservoir evaporation, and total reservoir release (reservoir releases to the Tuolumne River and the Turlock and Modesto Irrigation Districts' canals).

Question M18:

For 2017, some or all of the Don Pedro generation units were out of service at any time, and the Districts could not maximize the powerhouse as usual. The result was that the measurement method for power diversion used prior to 2017, which assumes maximum powerhouse, was no longer reliable. Instead, the Districts used the measured generation and the reservoir elevation/generation efficiency to calculate the water release through the powerhouse. Because not all of the units are back on line, the districts applied this method for the entire year. The districts are evaluating whether or not this is a more accurate method than that used previously.