## [SUMMARY OF FINAL SUBMITTED VERSION]

## **PROGRESS REPORT BY PERMITTEE FOR 2016**

Primary Owner: CHINO BASIN WATERMASTER Primary Contact:

Date Submitted: 03/30/2017

Application Number: A031369 Permit Number: 021225

Source(s) of Water	POD Parcel Number	County
DEER CREEK		Riverside
CUCAMONGA CREEK		San Bernardino
SAN ANTONIO CREEK		San Bernardino
SAN ANTONIO CREEK		San Bernardino
SAN ANTONIO CREEK		San Bernardino
DAY CREEK		San Bernardino
DEER CREEK		San Bernardino
CUCAMONGA CREEK		San Bernardino
CUCAMONGA CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
DAY CREEK		San Bernardino
EAST ETIWANDA CREEK		Los Angeles
SAN ANTONIO CREEK		San Bernardino
CUCAMONGA CREEK		San Bernardino
SAN ANTONIO CREEK		San Bernardino
EAST ETIWANDA CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
SAN SEVAINE CREEK		Riverside
SAN SEVAINE CREEK		San Bernardino
SAN SEVAINE CREEK		San Bernardino
SAN ANTONIO CREEK		San Bernardino
DAY CREEK		San Bernardino
SAN ANTONIO CREEK		San Bernardino

MAX Direct Diversion Rate: 0 GPD MAX Collection to Storage: 68500 AC-FT Face Value: 68500 AC-FT

Permitted Use(s) Acres Direct Diversion Season Storage Season Municipal 26887 01/01 to 12/31

1. Permit Review		
I have reviewed my water right permit	Yes	

2. Compliance with Permit Terms and Conditions		
I am complying with all terms and conditions	Yes	

Description of noncompliance with terms and conditions

3. Changes to the Project		
Intake location has been changed		
Description of intake location changes		
Type of use has changed		
Description of type of use changes		
Place of use has changed		
Description of place of use changes		
Other changes		
Description of other changes		

	4-6. Permitted Project Status		
Project Status	Not Complete		
6a. Construction work has commenced	Yes		
6b. Construction is completed	No		
6c. Beneficial uses of water has commenced	Yes		
6d. Project will be completed within the time period specified in the permit	Yes		
6e. Explanation of work remaining to be done	On October 9, 2008, Permit 21225 (A031369) was issued, allowing a period within which to make beneficial use through December 31, 2057. Petitions for Extension of Time, to the same date of December 31, 2057, are pending for Permits 19895 (A028473) and 20753 (A028996). In addition to annual operation and maintenance work at permitted diversions and storage facilities (groundwater recharge basins) and diversion points, CY 2016 work included the development of preliminary design reports, environmental documentation and final designs on nine recharge improvement projects as proposed in the 2013 Amendment to the 2010 Recharge Master Plan Update. These nine new recharge projects are, for the most part, expansions in recharge capacities at facilities; and, construction of these proposed recharge improvements is projected to be completed in 2020. The Chino Basin Watermaster and the Inland Empire Utilities Agency will update the recharge master plan in 2020 and every five years thereafter and they will subsequently construct additional recharge improvements to enhance diversion and recharge capacity within the quantities allowed under the three permits.		
6f. Estimated date of completion	12/31/2057		

7. Purpose of Use		
Irrigation	13000 Acres Mixed Crop Types	
Industrial	Mixed Manufacturing	
Municipal	860000	
Power	640 MW	

Stockwatering	89700 Cows, 4000 Other Livestock
Other	Commercial Supply and Landscape

Special Use Categories	
C1. Are you using any water diverted under this right for the cultivation of cannabis?	No

8. Maximum Rate of Diversion for each Month		
Month	Maximum Rate of Diversion (CFS)	
January	946	
February	227	
March	411	
April	76	
May	219	
June	1	
July	1	
August	1	
September	2	
October	95	
November	169	
December	665	

9. Amount of Water Diverted and Used			
Month	Amount directly diverted (Acre-Feet)	Amount diverted or collected to storage (Acre-Feet)	Amount used (Acre-Feet)
January	0	2398	2398
February	0	478	478
March	0	1476	1476
April	0	317	317
May	0	470	470
June	0	47	47
July	0	43	43
August	0	64	64
September	0	87	87
October	0	402	402
November	0	591	591
December	0	3389	3389
Total	0	9762	9762
Type of Diversion	Diversion to Storage Only		
Comments			

Water Transfers		
9d. Water transfered	No	
9e. Quantity transfered (Acre-Feet)		
9f. Dates which transfer occurred	/ to /	
9g. Transfer approved by		

Water Supply Contracts	
8h. Water supply contract	No
9i. Contract with	

9j. Other provider	
9k. Contract number	
9l. Source from which contract water was diverted	
9m. Point of diversion same as identified water right	
9n. Amount (Acre-Feet) authorized to divert under this contract	
9o. Amount (Acre-Feet) authorized to be diverted in 2016	
9p. Amount (Acre-Feet) projected for 2017	
9q. Exchange or settlement of prior rights	
9r. All monthly reported diversion claimed under the prior rights	
9s. Amount (Acre-Feet) of reported diversion solely under contract	

10. Water Diversion Measurement	
a. Required to measure as of the date this report is submitted	Yes
b. Is diversion measured?	
c. An alternative compliance plan was submitted to the division of water rights on	
d. A request for additional time was submitted to the division of water rights on	

Measurement ID number	M000438
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	College Heights West Basin Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2012
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	03/01/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the

transducer, removing any debris from the head of the sensor, 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site. M12. Describe the maintenance Maintenance as-needed, annual calibration schedule for the device/method Information for the person who last calibrated the device or designed the measurement method M13. Name Efrain Russo M14. Phone 1.951.295.0775 number M15. Email e.russo@ieua.org M16. A person under the supervision of a California-registered Professional Engineer and Qualifications employed to install, operate, and maintain water measurement and reporting devices or of the methods individual M17. License number and type for the A person trained to operate and maintain water measurement devices, supervised by qualified Randy Lee, a California-registered Professional Engineer (License #68573), and the individual Executive Manager of Operations and Maintenance for the Inland Empire Utilities above and/or Agency any other relevant explanation M18. Type of data recorder Other: Supervisory control and data acquisition (SCADA) system device / method M19 Data recorder device N/A M20 Data recorder serial N/A number M21 Data recorder model N/A number M22. Data recorder units of Acre-Feet measurement M23. Frequency More frequent than hourly

make

of data recording	
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of College Heights West Basin.

Measurement ID number	M001340
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Upland Basin Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2011
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.

	PROGRESS REPORT BY PERMITTEE
M9. Approximate date the measuring device was last calibrated or the	
measurement method was updated	
M10. Estimated	
accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
•	•

M19. Data

N/A

recorder device	
make M20. Data	
recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Upland Basin.
Measurement ID number	M001425
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Montclair Basin 1 Transducer
ı aterboards.ca.gov/Permi	 tPrint_2016b.aspx?FORM_ID=293090

MO T	Progress Refort by Fermittee
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	06/29/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	01/12/2016
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods

	PROGRESS REPORT BY FERWITTEE
of the individual	
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Montclair Basins 1-4

	PROGRESS REPORT BY PERMITTEE
Measurement ID number	M001426
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Montclair Basin 2 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	04/12/2016
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/22/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was pe

	PROGRESS REPORT BY PERMITTEE
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on	Yes

the method I used to calculate the volume of water	
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Montclair Basins 1-4

report	
Measurement ID number	M001427
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Montclair Basin 3 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/22/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply

	pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by	No

telemetry as of the date this report is submitted  M26. I report my diversion or storage date by telemetry to the following website  M27. I have attached additional information on the method I used to calculate the volume of water  M28. Describe		TROOKESS KEI OKT BITTEKWITTEE
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attached additional information on the method I used to calculate the volume of water	diversion or storage date by telemetry to the	
M28. Describe	attached additional information on the method I used to calculate the volume of	Yes
any documents related to this measurement device or method that are attached to this water use report	any documents related to this measurement device or method that are attached to this water use	Elevation-area-storage table of Montclair Basins 1-4
Measurement ID	Magaurament ID	

Торол	I
Measurement ID number	M001428
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Montclair Basin 4 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	06/06/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/22/2017
M10. Estimated	0.1%

	PROGRESS REPORT BY PERMITTEE
accuracy of	
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A

PROGRESS REPORT BY PERMITTEE	
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Montclair Basins 1-4
Measurement ID number	M001429
This Device/Method	

Measurement ID number	M001429
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Brooks Basin Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of	07/01/2013

Best efforts were made to collect serial numbers, but they are not reasonably available.
04/28/2016
0.1%
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
Maintenance as-needed, annual calibration
e person who last calibrated the device or designed the measurement method
Efrain Russo
1.951.295.0775
e.russo@ieua.org
A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency

	PROGRESS REPORT BY PERMITTEE
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Brooks Basin

Measurement ID number	M001430
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the	Transducer

_	PROGRESS REPORT BY PERMITTEE
measurement device or method	
M2. Nickname	8th Street Basin Transducer (North Cell)
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	11/14/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	07/05/2016
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org

M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached	Elevation-area-storage table of 8th Street Basin

Measurement ID

number This

M001431

to this water use report

Yes
Transducer
8th Street Basin Transducer (South Cell)
Pressure transducer
PMC
N/A
Versaline VL 4513
10/18/2015
Best efforts were made to collect serial numbers, but they are not reasonably available.
03/09/2017
0.1%
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B.

	PROGRESS REPORT BY PERMITTEE
	Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	

	PROGRESS REPORT BY PERMITTEE
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of 8th Street Basin
Measurement ID number	M001432
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	7th Street Basin Transducer
M3. Type of device / method	Pressure transducer

Best efforts were made to collect serial numbers, but they are not reasonably available.

1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2.

Check the surrounding area around the sensor for safety. The water level must be

below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process

M4. Device make GE Druck

N/A

PTX 1830

07/01/2012

07/05/2016

0.1%

M5. Serial

number M6. Model

number

date of

info

date the

was last

installation M8. Additional

M7. Approximate

M9. Approximate

measuring device

calibrated or the measurement method was updated

M10. Estimated

accuracy of measurement M11. Description

of calibration

method

	PROGRESS REPORT BY FERWITTEE
	calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe	
the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
· ·	•

M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of 7th Street Basin

Measurement ID number	M001433
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Ely Basin 1 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	05/15/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the	07/05/2016

measurement method was updated	
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial	N/A

number	
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Ely Basins 1-3

Measurement ID number	M001434
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Ely Basin 2 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A

M6. Model number	Versaline VL 4513
M7. Approximate date of installation	06/01/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	07/05/2016
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency

	FROGRESS REPORT BY FERWITTEE
above and/or any other relevant	
explanation	
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Ely Basins 1-3
Measurement ID	M001435

Measurement ID number	M001435
This Device/Method was used to measure water	Yes

	PROGRESS REPORT BY PERMITTEE
during the current reporting period	
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Ely Basin 3 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	06/12/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	07/05/2016
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method

M13. Name	Efrain Russo
M14. Phone	
number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes  Elevation area storage table of Ely Rasins 1.3
M28. Describe any documents	Elevation-area-storage table of Ely Basins 1-3

related to this	
measurement	
device or method	
that are attached	
to this water use	
report	

Measurement ID number	M001436
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Grove Basin Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	03/18/2014
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	03/03/2016
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the maximum

	PROGRESS REPORT BY PERMITTEE
	pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my	

diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Grove Basin

торогс	I
NA	I
Measurement ID number	M001449
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Turner Basin 1 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	07/16/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/23/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the

transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site. M12. Describe the maintenance Maintenance as-needed, annual calibration schedule for the device/method Information for the person who last calibrated the device or designed the measurement method M13. Name Efrain Russo M14. Phone 1.951.295.0775 number M15. Email e.russo@ieua.org M16. A person under the supervision of a California-registered Professional Engineer and Qualifications employed to install, operate, and maintain water measurement and reporting devices or of the methods individual M17. License number and type for the A person trained to operate and maintain water measurement devices, supervised by qualified Randy Lee, a California-registered Professional Engineer (License #68573), and the individual Executive Manager of Operations and Maintenance for the Inland Empire Utilities above and/or Agency any other relevant explanation M18. Type of data recorder Other: Supervisory control and data acquisition (SCADA) system device / method M19. Data recorder device N/A make M20 Data recorder serial N/A number M21. Data recorder model N/A number M22. Data recorder units of Acre-Feet measurement M23. Frequency More frequent than hourly

of data recording	
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Turner Basins

Measurement ID number	M001450
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Turner Basin 2 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	04/21/2016
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.

accuracy of measurement  1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal.  M11. Description of calibration method  M12. Describtion of the process pressure to 50 percent of the range of the instrument, and check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument, pump to apply pressure to the instrument. Check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument, and check that the Fluke meter shows 16mA. D. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to 15 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to 15 percent of the range of the instrument is in good condition. For the instrument reading of the instrument is in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance schedule for the pressure of the maintenance schedule for the pressure and properation of the pressure and properation o	M9. Approximate date the measuring device was last calibrated or the measurement method was updated	
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Merlam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in calean and dry, insert the sensor is clean and dry, insert the sensor in calean and dry, insert the sensor is clean and dry, insert the sensor in calean and dry, insert the sensor is clean and the sensor of the instrument and check that the Fluke meter should show 20mA, which is the maximum reading of the instrument and check that the Fluke meter shows 4mA. I. Check the linear sensor to the instrument insert the refuse and check that the Fluke meter shows 4mA. D	M10. Estimated	0.10/
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Filke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. All notes the minimum pressure cargo of the instrument and check that the Fluke meter shows 4 mA. 11. Check the linearity of the instrument and check that the Fluke meter shows 4 mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 1 mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 1 manufacturers). B. Respond quickly to any variation of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter 13. Prior to leaving site, request an operational test of the equipment on which maintenance vas performed. 14. Confirm that no active alarms exist prior to leaving the site.  M12. Describe the maintenance schedule for the device/method  M13. Name  M14. Phone number  M15. Email  M66.  Qualifications of the instrument and check that	•	0.1%
the maintenance schedule for the device/method  Information for the person who last calibrated the device or designed the measurement method  M13. Name Efrain Russo  M14. Phone number  M15. Email e.russo@ieua.org  M16. Qualifications of the individual  M17. License number and type for the qualified individual above and/or any other relevant explanation  M18. Type of data recorder  Maintenance as-needed, annual calibration  Maintenance as-needed, annual calibration  Maintenance as-needed, annual calibration  Maintenance as-needed, annual calibration  Maintenance or designed the measurement method  1.951.295.0775  A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods  A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities  M18. Type of data recorder  Other: Supervisory control and data acquisition (SCADA) system	M11. Description of calibration	Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms
M13. Name	the maintenance schedule for the	Maintenance as-needed, annual calibration
M14. Phone number  M15. Email  M16. Qualifications of the individual  M17. License number and type for the qualified individual above and/or any other relevant explanation  M18. Type of data recorder  M18. Type of data recorder  M19. License number and type for the qualified individual above and/or any other relevant explanation  M18. Type of data recorder  M19. License number and type for the qualified individual above and/or any other relevant explanation  M19. Type of data recorder  M19. License number and type for the qualified individual above and/or any other relevant explanation  M19. Type of data recorder  M19. License number and type for the qualified individual above and/or any other relevant explanation  M19. Type of data recorder  M19. License number and type for the qualified individual above and/or any other relevant explanation  M19. Type of data recorder	Information for the	e person who last calibrated the device or designed the measurement method
number  M15. Email  M16. Qualifications of the individual  M17. License number and type for the qualified individual above and/or any other relevant explanation  M18. Type of data recorder  M15. Email  e.russo@ieua.org  A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods  A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency  Other: Supervisory control and data acquisition (SCADA) system	M13. Name	Efrain Russo
M16. Qualifications of the individual  M17. License number and type for the qualified individual above and/or any other relevant explanation  M18. Type of data recorder  M16. Qualifications of the supervision of a California-registered Professional Engineer and maintain water measurement and reporting devices or methods  A person under the supervision of a California-registered Professional Engineer and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities  M18. Type of data recorder  Other: Supervisory control and data acquisition (SCADA) system	1	1.951.295.0775
Qualifications of the individual  M17. License number and type for the qualified individual above and/or any other relevant explanation  M18. Type of data recorder  A person under the supervision of a California-registered Professional Engineer and maintain water measurement and reporting devices or methods  A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities  A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer and Maintenance for the Inland Empire Utilities  A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer and Maintenance for the Inland Empire Utilities  A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities  A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer and Maintenance for the Inland Empire Utilities Agency	M15. Email	e.russo@ieua.org
number and type for the qualified individual above and/or any other relevant explanation  M18. Type of data recorder  number and type for the qualified type for the qualified individual above and/or any other relevant explanation  A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency  Other: Supervisory control and data acquisition (SCADA) system	Qualifications of the	employed to install, operate, and maintain water measurement and reporting devices or
data recorder Other: Supervisory control and data acquisition (SCADA) system	number and type for the qualified individual above and/or any other relevant explanation	Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities
	data recorder	Other: Supervisory control and data acquisition (SCADA) system

	PROGRESS REPORT BY PERMITTEE
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Turner Basins
Measurement ID number	M001455
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Turner Basin 3 Transducer
	Turner Basin 3 Transducer tPrint_2016b.aspx?FORM_ID=293090

M3. Type of	Pressure transducer
device / method	1 resoure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	02/25/2016
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/23/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods

	PROGRESS REPORT BY FERWITTEE
of the individual	
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Turner Basins

	PROGRESS REPORT BY PERWITTEE
Measurement ID number	M001456
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Turner Basin 4a Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	06/10/2014
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/23/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.

	PROGRESS REPORT BY PERMITTEE
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on	Yes

the method I used to calculate the volume of water	
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Turner Basins

Measurement ID number	M001463
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Turner Basin 4b Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	06/11/2014
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/23/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply
waterboards.ca.gov/Permi	tPrint_2016b.aspx?FORM_ID=293090

pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.

## M12. Describe the maintenance schedule for the

Maintenance as-needed, annual calibration

device/method	
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by	No

telemetry as of the date this report is submitted	
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Turner Basins
Measurement ID number	M001464
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Turner Basin 4c Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	06/12/2014
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/23/2017
M10. Estimated	0.1%

	PROGRESS REPORT BY PERIMIT IEE
accuracy of	
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was pe
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A

	PROGRESS REPORT BY PERMITTEE
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Turner Basins
Measurement ID	M001466

Measurement ID number	M001466
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Lower Day Basin Cell 2 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of	10/18/2016

Best efforts were made to collect serial numbers, but they are not reasonably available.
10/18/2016
0.1%
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
Maintenance as-needed, annual calibration
e person who last calibrated the device or designed the measurement method
Efrain Russo
1.951.295.0775
e.russo@ieua.org
A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency

	PROGRESS REPORT BY PERMITTEE
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Lower Day Basin

Measurement ID number	M001467
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the	Transducer

	PROGRESS REPORT BY PERIODITIES
measurement device or method	
M2. Nickname	Victoria Basin South Cell Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	11/15/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	01/25/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org

M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached	Elevation-area-storage table of Victoria Basin

to this water use report

Measurement ID number	M001468
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Victoria Basin North Cell Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2013
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	01/25/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B.

	PROGRESS REPORT BY PERMITTEE
	Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	

M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Victoria Basin

report	
Measurement ID number	M001469
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	San Sevaine Cell 1 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2012
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/27/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process

	PROGRESS REPORT BY FERWITTEE
	calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe	
the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	norman who lost colibrated the device or designed the mass remark method
	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
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M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of San Sevaine Basins 1-5

Measurement ID number	M001470
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	San Sevaine Cell 2 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2012
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the	02/27/2017

0.1%	
1. Prior to arriving on-site, notify Groundwater Recharg Check the surrounding area around the sensor for safe below the sensor location. 3. Remove the transducer for transducer, removing any debris from the head of the scalibration method per instrument specifications and O manual. 6. Record most recent transducer reading. 7. I Meriam (Smart Manometer), pressure pump, hoses, cacalibrator (Fluke meter, with range of 4 to 20 Milliamps Protection (MP-11) unit and tubing for cracks and leaks dry, insert the sensor in the calibrator tube. Tighten the 10. Using the chart scaled to the proper range of the inpressure to the instrument. Check the minimum pressumeter shows 4mA. 11. Check the linearity of the instrupercent of the range of the instrument and check that the Increase pressure to 50 percent of the range of the insimeter shows 12mA. C. Increase pressure to 75 percer and check that the Fluke meter shows 16mA. D. Increpressure range (using the chart referenced above). The which is the maximum reading of the instrument. 12. V good condition. For the instrument to be in good condition accord Respond quickly to any variation on the pressure calibron the Fluke meter. 13. Prior to leaving site, request are equipment on which maintenance was performed. 14. 0	ety. The water level must be from the case. 4. Clean the sensor. 5. Check the transmitter operations and Maintenance Prepare the calibrator equipment: alibrator tube, and Fluke Process [mA]). 8. Inspect Moisture is 9. After the sensor is clean and is sensor to ensure a good seal. Instrument, pump to apply the case of the Fluke meter shows 8 mA. B. trument and check that the Fluke into the range of the instrument is ease pressure to the maximum of Fluke meter should show 20mA, for fifty that the instrument is in the case of the indicated mase of the indica
exist prior to leaving the site.	
Maintenance as-needed, annual calibration	
e person who last calibrated the device or designed the	measurement method
Efrain Russo	
1.951.295.0775	
e.russo@ieua.org	
A person under the supervision of a California-registered employed to install, operate, and maintain water measure methods	
A person trained to operate and maintain water measure Randy Lee, a California-registered Professional Engine Executive Manager of Operations and Maintenance for Agency	eer (License #68573), and the
Other: Supervisory control and data acquisition (SCAD	0A) system
N/A	
N/A	
on the Fluke meter. 13. Prior to leaving site, request are equipment on which maintenance was performed. 14. (exist prior to leaving the site.  Maintenance as-needed, annual calibration  e person who last calibrated the device or designed the leaving Efrain Russo  1.951.295.0775  e.russo@ieua.org  A person under the supervision of a California-registered employed to install, operate, and maintain water measure methods  A person trained to operate and maintain water measure Randy Lee, a California-registered Professional Engine Executive Manager of Operations and Maintenance for Agency  Other: Supervisory control and data acquisition (SCAD N/A)	measurement method  measurement method  ed Professional Engineer urement and reporting deser (License #68573), and the Inland Empire Utilities.

number	
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of San Sevaine Basins 1-5

Measurement ID number	M001471
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	San Sevaine Cell 3 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A

l	
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2012
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/27/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe	The state of the s
the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency

	PROGRESS REPORT BY PERMITTEE
above and/or any other	
relevant	
explanation	
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of San Sevaine Basins 1-5
Measurement ID	M001472

Measurement ID number	M001472
This Device/Method was used to measure water	Yes

	PROGRESS REPORT BY PERMITTEE
during the current reporting period	
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	San Sevaine Cell 5 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2013
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/27/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	person who last calibrated the device or designed the measurement method

M13. Name	Efrain Russo
M14. Phone	
number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water  M28. Describe	Yes  Flavation-group table of San Sovaine Basins 1-5
any documents	Elevation-area-storage table of San Sevaine Basins 1-5

related to this	3
measurement	ıt
device or method	thod
that are attached	ched
to this water use	use
report	

Measurement ID number	M001473
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Jurupa Basin Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2012
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/27/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. D. Increase pressure to the maximum

	PROGRESS REPORT BY PERMITTEE
	pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my	

diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Jurupa Basin

горогс	I .
Measurement ID number	M001474
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Banana Basin Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2011
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/25/2016
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the

transducer, removing any debris from the head of the sensor, 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site. M12. Describe the maintenance Maintenance as-needed, annual calibration schedule for the device/method Information for the person who last calibrated the device or designed the measurement method Efrain Russo M13. Name M14. Phone 1.951.295.0775 number M15. Email e.russo@ieua.org M16. A person under the supervision of a California-registered Professional Engineer and Qualifications employed to install, operate, and maintain water measurement and reporting devices or of the methods individual M17. License number and type for the A person trained to operate and maintain water measurement devices, supervised by qualified Randy Lee, a California-registered Professional Engineer (License #68573), and the individual Executive Manager of Operations and Maintenance for the Inland Empire Utilities above and/or Agency any other relevant explanation M18. Type of data recorder Other: Supervisory control and data acquisition (SCADA) system device / method M19. Data recorder device N/A make M20 Data recorder serial N/A number M21 Data recorder model N/A number M22. Data recorder units of Acre-Feet measurement M23. Frequency More frequent than hourly

	PROGRESS REPORT BY FERMITTEE
of data recording	
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Banana Basin

Measurement ID number	M001476
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Hickory Basin East Cell Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	12/15/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.

	PROGRESS REPORT BY PERMITTEE
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	
M10. Estimated	
accuracy of measurement	0.1%
measurement	Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2.
M11. Description of calibration method	Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
•	

	PROGRESS REPORT BY PERMITTEE
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Hickory Basin
Measurement ID number	M001477
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
IN ACC. A L' - Louis access	Il lielene Henin Went Call Tanandones

Hickory Basin West Cell Transducer

M2. Nickname

IMO T	PROGRESS REPORT BY PERIMITIES
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	09/16/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/24/2016
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods

	PROGRESS REPORT BY FERWITTEE
of the individual	
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Hickory Basin

|Measurement ID |M001480

number	1480
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	RP-3 Cell 1a Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2012
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/21/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was pe

	PROGRESS REPORT BY PERMITTEE
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on	Yes

the method I used to calculate the volume of water	
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of the RP-3 Basins

report	
Measurement ID	NOOT TO
number	M001481
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	RP-3 Cell 1b Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	05/03/2014
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/21/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply

	pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by	No

PROGRESS REPORT BY PERMITTEE	
telemetry as of the date this report is submitted	
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of the RP-3 Basins
Measurement ID	M001482

Measurement ID number	M001482
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	RP-3 Cell 2 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	03/01/2016
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/21/2017
M10. Estimated	0.1%

PROGRESS REPORT BY PERMITTEE
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
Maintenance as-needed, annual calibration
e person who last calibrated the device or designed the measurement method
Efrain Russo
1.951.295.0775
e.russo@ieua.org
A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
Other: Supervisory control and data acquisition (SCADA) system
N/A
N/A
N/A

	PROGRESS REPORT BY PERMITTEE
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of the RP-3 Basins
Measurement ID number	M001483
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	RP-3 Cell 3a Transducer
M3. Type of device / method	Pressure transducer
1	

M7. Approximate 04/14/2014

N/A

M4. Device make PMC

M5. Serial

number M6. Model

number

date of

Versaline VL 4513

Post efforts were made to collect corial numbers, but they are not reconcilly available.
Best efforts were made to collect serial numbers, but they are not reasonably available.
02/21/2017
0.1%
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
Maintenance as-needed, annual calibration
person who last calibrated the device or designed the measurement method
Efrain Russo
1.951.295.0775
e.russo@ieua.org
A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency

	PROGRESS REPORT BY PERMITTEE
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of the RP-3 Basins

Measurement ID number	M001484
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the	Transducer

_	PROGRESS REPORT BY PERMITTEE
measurement device or method	
M2. Nickname	RP-3 Cell 3b Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	04/20/2015
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/21/2017
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org

M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached	Elevation-area-storage table of the RP-3 Basins

to this water use report

M001485
Yes
Transducer
RP-3 Cell 4a Transducer
Pressure transducer
GE Druck
N/A
PTX 1830
07/01/2012
Best efforts were made to collect serial numbers, but they are not reasonably available.
02/21/2017
0.1%
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B.

	PROGRESS REPORT BY PERMITTEE
	Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
Information for the	e person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	

M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of the RP-3 Basins

report	
Measurement ID number	M001486
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	RP-3 Cell 4b Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A
M6. Model number	PTX 1830
M7. Approximate date of installation	07/01/2012
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	12/28/2015
M10. Estimated accuracy of measurement	0.1%
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process

	PROGRESS REPORT BY FERWITTEE
	calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site.
M12. Describe	
the maintenance schedule for the device/method	Maintenance as-needed, annual calibration
	person who last calibrated the device or designed the measurement method
M13. Name	Efrain Russo
M14. Phone number	1.951.295.0775
M15. Email	e.russo@ieua.org
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system
M19. Data recorder device make	N/A
M20. Data recorder serial number	N/A
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
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M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of the RP-3 Basins

Measurement ID number	M001487
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Declez Basin Cell 3 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	PMC
M5. Serial number	N/A
M6. Model number	Versaline VL 4513
M7. Approximate date of installation	11/28/2016
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.
M9. Approximate date the measuring device was last calibrated or the	11/28/2016

PROGRESS REPORT BY PERMITTEE
0.1%
1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si
Maintenance as-needed, annual calibration
e person who last calibrated the device or designed the measurement method
Efrain Russo
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A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency
Other: Supervisory control and data acquisition (SCADA) system
N/A
N/A

number	
M21. Data recorder model number	N/A
M22. Data recorder units of measurement	Acre-Feet
M23. Frequency of data recording	More frequent than hourly
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No
M26. I report my diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Declez Basin

Measurement ID number	M001488
This Device/Method was used to measure water during the current reporting period	Yes
M1. Briefly describe the measurement device or method	Transducer
M2. Nickname	Declez Basin Cell 2 Transducer
M3. Type of device / method	Pressure transducer
M4. Device make	GE Druck
M5. Serial number	N/A

M6. Model number	PTX 1830				
M7. Approximate date of installation	07/01/2014				
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably availab				
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/23/2016				
M10. Estimated accuracy of measurement	0.1%				
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si				
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration				
Information for the	e person who last calibrated the device or designed the measurement method				
M13. Name	Efrain Russo				
M14. Phone number	1.951.295.0775				
M15. Email	e.russo@ieua.org				
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods				
M17. License number and type for the qualified individual	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency				

	FROGRESS REFORT BY FERWITTEE			
above and/or any other relevant				
explanation				
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system			
M19. Data recorder device make	N/A			
M20. Data recorder serial number	N/A			
M21. Data recorder model number	N/A			
M22. Data recorder units of measurement	Acre-Feet			
M23. Frequency of data recording	More frequent than hourly			
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.			
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No			
M26. I report my diversion or storage date by telemetry to the following website				
M27. I have attached additional information on the method I used to calculate the volume of water	Yes			
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table of Declez Basin			
Measurement ID	M001490			

Measurement ID number	M001490
This Device/Method was used to measure water	Yes

	PROGRESS REPORT BY PERMITTEE				
during the current reporting period					
M1. Briefly describe the measurement device or method	Transducer				
M2. Nickname	Declez Basin Cell 1 Transducer				
M3. Type of device / method	Pressure transducer				
M4. Device make	GE Druck				
M5. Serial number	N/A				
M6. Model number	PTX 1830				
M7. Approximate date of installation	07/01/2013				
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.				
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	02/23/2016				
M10. Estimated accuracy of measurement	0.1%				
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the si				
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration				
	leperson who last calibrated the device or designed the measurement method				

M13. Name	Efrain Russo			
M14. Phone number	1.951.295.0775			
M15. Email	e.russo@ieua.org			
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods			
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the Executive Manager of Operations and Maintenance for the Inland Empire Utilities Agency			
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system			
M19. Data recorder device make	N/A			
M20. Data recorder serial number	N/A			
M21. Data recorder model number	N/A			
M22. Data recorder units of measurement	Acre-Feet			
M23. Frequency of data recording	More frequent than hourly			
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.			
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No			
M26. I report my diversion or storage date by telemetry to the following website				
M27. I have attached additional information on the method I used to calculate the volume of water	Yes			
M28. Describe any documents	Elevation-area-storage table of Declez Basin			

related to this	ed to this	
measurement	surement	
device or method	ce or method	
that are attached	are attached	
to this water use	nis water use	
report	ort	

Measurement ID number	M001652				
This Device/Method was used to measure water during the current reporting period	Yes				
M1. Briefly describe the measurement device or method	Transducer				
M2. Nickname	Lower Day Basin Cell 1 Transducer				
M3. Type of device / method	Pressure transducer				
M4. Device make	GE Druck				
M5. Serial number	N/A				
M6. Model number	PTX 1830				
M7. Approximate date of installation	07/01/2011				
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably availab				
M9. Approximate date the measuring device was last calibrated or the measurement method was updated					
M10. Estimated accuracy of measurement	0.1%				
M11. Description of calibration method	1. Prior to arriving on-site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the transducer, removing any debris from the head of the sensor. 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the maximum				

	PROGRESS REPORT BY PERMITTEE					
pressure range (using the chart referenced above). The Fluke meter should show which is the maximum reading of the instrument. 12. Verify that the instrument good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indication on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active all exist prior to leaving the site.						
M12. Describe the maintenance schedule for the device/method	Maintenance as-needed, annual calibration					
	person who last calibrated the device or designed the measurement method					
M13. Name	Efrain Russo					
M14. Phone number	1.951.295.0775					
M15. Email	e.russo@ieua.org					
M16. Qualifications of the individual	A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods					
M17. License number and type for the qualified individual above and/or any other relevant explanation	A person trained to operate and maintain water measurement devices, supervised by Randy Lee, a California-registered Professional Engineer (License #68573), and the					
M18. Type of data recorder device / method	Other: Supervisory control and data acquisition (SCADA) system					
M19. Data recorder device make	N/A					
M20. Data recorder serial number	N/A					
M21. Data recorder model number	N/A					
M22. Data recorder units of measurement	Acre-Feet					
M23. Frequency of data recording	More frequent than hourly					
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.					
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No					
M26. I report my						

diversion or storage date by telemetry to the following website	
M27. I have attached additional information on the method I used to calculate the volume of water	Yes
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table for the Lower Day Basin

Героп	I .			
Measurement ID number	M001812			
This Device/Method was used to measure water during the current reporting period	Yes			
M1. Briefly describe the measurement device or method	Transducer			
M2. Nickname	Lower Day Basin Cell 3 Transducer			
M3. Type of device / method	Pressure transducer			
M4. Device make	GE Druck			
M5. Serial number	N/A			
M6. Model number	PTX 1830			
M7. Approximate date of installation	07/01/2011			
M8. Additional info	Best efforts were made to collect serial numbers, but they are not reasonably available.			
M9. Approximate date the measuring device was last calibrated or the measurement method was updated	05/01/2014			
M10. Estimated accuracy of measurement	0.1%			
M11. Description of calibration method	1. Prior to arriving on site, notify Groundwater Recharge Operations of intent to work. 2. Check the surrounding area around the sensor for safety. The water level must be below the sensor location. 3. Remove the transducer from the case. 4. Clean the			

transducer, removing any debris from the head of the sensor, 5. Check the transmitter calibration method per instrument specifications and Operations and Maintenance manual. 6. Record most recent transducer reading. 7. Prepare the calibrator equipment: Meriam (Smart Manometer), pressure pump, hoses, calibrator tube, and Fluke Process calibrator (Fluke meter, with range of 4 to 20 Milliamps [mA]). 8. Inspect Moisture Protection (MP-11) unit and tubing for cracks and leaks. 9. After the sensor is clean and dry, insert the sensor in the calibrator tube. Tighten the sensor to ensure a good seal. 10. Using the chart scaled to the proper range of the instrument, pump to apply pressure to the instrument. Check the minimum pressure (zero) to check that the Fluke meter shows 4mA. 11. Check the linearity of the instrument: A. Increase pressure to 25 percent of the range of the instrument and check that the Fluke meter shows 8 mA. B. Increase pressure to 50 percent of the range of the instrument and check that the Fluke meter shows 12mA. C. Increase pressure to 75 percent of the range of the instrument and check that the Fluke meter shows 16mA. D. Increase pressure to the maximum pressure range (using the chart referenced above). The Fluke meter should show 20mA, which is the maximum reading of the instrument. 12. Verify that the instrument is in good condition. For the instrument to be in good condition, it must: A. Be in an acceptable accuracy range (minimum deviation according to manufacturers). B. Respond quickly to any variation on the pressure calibrator. C. Show the indicated mAs on the Fluke meter. 13. Prior to leaving site, request an operational test of the equipment on which maintenance was performed. 14. Confirm that no active alarms exist prior to leaving the site. M12. Describe the maintenance Maintenance as-needed, annual calibration schedule for the device/method Information for the person who last calibrated the device or designed the measurement method M13. Name Efrain Russo M14. Phone 1.951.295.0775 number M15. Email e.russo@ieua.org M16. A person under the supervision of a California-registered Professional Engineer and Qualifications employed to install, operate, and maintain water measurement and reporting devices or of the methods individual M17. License number and type for the A person trained to operate and maintain water measurement devices, supervised by qualified Randy Lee, a California-registered Professional Engineer (License #68573), and the individual Executive Manager of Operations and Maintenance for the Inland Empire Utilities above and/or Agency any other relevant explanation M18. Type of data recorder Other: Supervisory control and data acquisition (SCADA) system device / method M19. Data recorder device N/A M20 Data recorder serial N/A number M21 Data recorder model N/A number M22. Data recorder units of Acre-Feet measurement M23. Frequency More frequent than hourly

make

of data recording					
M24. Additional data recorder info	Transducer's digital data is transmitted to a programmable logic controller (PLC), which relays the data via radio to a computer that stores the information. This is facilitated by the SCADA system.				
M25. I am required to report my diversion or storage data by telemetry as of the date this report is submitted	No				
M26. I report my diversion or storage date by telemetry to the following website					
M27. I have attached additional information on the method I used to calculate the volume of water	Yes				
M28. Describe any documents related to this measurement device or method that are attached to this water use report	Elevation-area-storage table for the Lower Day Basin.				

11. Storage					
Reservoir name	Spilled this year	Feet below spillway at maximum storage			Method used to measure water level
Chino Groundwater Basin	No	0	No	0	Regional Groundwater Level Monitoring Network

Conservation of Water		
12. Are you now employing water conservation efforts?	Yes	
conservation efforts	The over 200 Appropriative, Non-Agricultural, and Agricultural Chino Basin groundwater producers have instituted many water conservation measures, ranging from recycled water conservation to public education notices.	
13. Amount of water conserved		

Water Quality and Wastewater Reclamation		
14. During the period covered by this Report, did you use reclaimed water from a wastewater treatment facility, water from a desalination facility, or water polluted by waste to a degree which unreasonably affects the water for other beneficial uses?	Yes	
15. Amount of reclaimed, desalinated, or polluted water used		

Conjuctive Use of Groundwater and Surface Water		
16. During the period covered by this Report, were you using groundwater in lieu of available surface water authorized under your permit?	No	
17. Amounts of groundwater used		

## **Additional Remarks**

The Chino Basin Watermaster holds three permitted rights for diversion and recharge of stormwater within the Santa Ana River Watershed. Permit 19895 covers the Day Creek Project Facilities and allows the diversion of 15,000 acre-feet annually, from November 1 through April 30 of the succeeding year, to underground storage through recharge basins and spreading grounds along Day Creek. Permit 20753 covers the East Etiwanda Creek and San Sevaine Creek Facilities and allows the diversion of 27,000 acre-feet annually, from October 1 through May 1 of the succeeding year, to underground storage through recharge basins and spreading grounds along East Etiwanda and San Sevaine Creeks. Permit 21225 allows the annual diversion of 68,500 acre-feet, from January 1 to December 31, to underground storage through recharge basins and spreading grounds along Deer, Day, Etiwanda, San Sevaine, Chino, San Antonio, and Cucamonga Creeks, (For clarity, the notice listed Deer Creek as being in Riverside County, but it is located entirely within San Bernardino County.) Some facilities covered under Permits 19895 and 20753 are additionally permitted for additional recharge under Permit 21225. Chino Basin Watermaster conjunctively manages spreading ground and basin recharge pursuant to the three permits and believes the permits are best managed conjunctively. While several phases of groundwater recharge facility construction have been completed, pursuant to these three permits, the Chino Basin Stakeholders continue to implement additional improvements contemplated in the Recharge Master Plan and Optimum Basin Management Program. Furthermore, since precipitation within the Chino Basin watershed is both flashy and subject to extreme variations in annual rainfall volumes (droughty), it is anticipated that diversion to storage may also vary dramatically and infrequently reach full permitted volumes. Pursuant to Permit 21225, Watermaster has through the year 2057 to make full beneficial use of the allowed storage volume, and similar time extensions are currently pending for permits 19895 and 20753, to facilitate conjunctive implementation and operation of the diversion and recharge basin and spreading ground network. With respect to Question 7, Watermaster's permits allow use for Industrial, Irrigation and Municipal purposes (and, in the case of Permit 21225, Stockwatering). During the calendar year, the total volume of groundwater extracted from the Chino Basin was approximately 148,724 acre-feet: including 99,490 acre-feet for municipal (Appropriators) use, 17,641 acre-feet for Agricultural (Crops and Stockwatering/Dairy), 28,249 acre-feet by Chino Basin Desalter Authority (24,448 acre-feet of which was made available for municipal use), 3,165 acre-feet for Non-Agricultural Overlying (Industrial) use and 178 acre-feet for energy production. With respect to Question 9, these volumes reflect the quantities of recharge diverted to underground storage pursuant to Permits 19895, 20753, and 21225, as Chino Basin Watermaster conjunctively manages all diversions to the recharge basin and spreading ground network. With respect to Question 8, the daily volume of water diverted at each facility was measured using pressure transducers and physical configurations, converted into an average 24-hour flow rate, summed. and the maximum for each month reported. With respect to Question 14, during the calendar year, the Chino Desalters extracted 28,249 acre-feet of contaminated stored groundwater (degraded by TDS, nitrate, and TCE), producing 24,448 acre-feet of (reclaimed) product water. Additionally, 34,424 acre-feet of reclaimed (recycled) water were used of which 14,310 acre-feet were recharged and 20,114 acre-feet were directly used.

	Attachments				
File Name	Description	Size			
2016 Annual Streamflow Monitoring Report for Permit 21225.pdf	Annual Streamflow Monitoring Report for Water Rights Permit 21225, Fiscal 2015/2016 with transmittal letter included.	3 MB			
EAS - 2017.zip	Elevation-area-storage tables for recharge facilities in the Chino Basin	1 MB			

Contact Information of the Person Submitting the Form			
First Name	Garrett		
Last Name	Rapp		
Relation to Water Right	Other: Engineer for the Chino Basin Watermaster		
Has read the form and agrees the information in the report is true to the best of his/her knowledge and belief	Yes		