

Dr. Aaron Steinwand
Inyo County Water Department
135 South Jackson Street
Independence, CA 93526

July 9, 2021

RE: Summary of Hydrologic Monitoring Activities, June 2021
Rose Valley, Inyo County, California
Hay Ranch Project Conditional Use Permit #2007-03

Dear Dr. Steinwand:

This letter summarizes hydrologic monitoring activities conducted in June 2021 by TEAM Engineering & Management, Inc. (TEAM), related to the Hay Ranch Water Extraction Project and CUP #2007-03.

Background

As outlined in the Hay Ranch Water Extraction Final EIR's Hydrologic Monitoring and Mitigation Plan (HMMP), *Phase 1: Monitoring System Setup and Supplemental Data Collection* occurred prior to December 25, 2009 at monitoring points throughout Rose Valley. With the initiation of pumping by Coso Operating Company, LLC (COC) on December 25, 2009, the Hay Ranch Water Extraction Project entered into the *Phase 2: Startup Monitoring and Reporting* period. *Phase 3: Model Recalibration and Redefinition of Pumping Rates and Durations* occurred from September 2010 to April 2011, with recalibration of the groundwater model by Daniel B. Stephens & Associates (DBS&A) and with redefinition of pumping rates and durations by Inyo County Water Department (ICWD). With the April 1, 2011 issuance of the ICWD's "Addendum to the HMMP for CUP#2007-003/Coso Operating Company, LLC" (2011 ICWD Addendum) the project entered *Phase 4: Ongoing Monitoring, Mitigation and Reporting*. In 2013 further model revision occurred with results and new trigger levels detailed in ICWD's August 30, 2013 letter to COC regarding Conditional Use Permit #2007-003/Coso. In June 2014 further model revision was conducted by DBS&A with results and new trigger levels detailed in ICWD's June 27, 2014 letter to COC regarding Conditional Use Permit #2007-003/Coso. On June 20, 2016 the ICWD extended the June 30, 2016 cessation of pumping date to September 30, 2016.

Re-evaluation of pumping rates and duration based on recalibration of the model was conducted by DBS&A in 2017. Continuation of pumping, at a rate not to exceed 1,611 acre-feet annually beginning on June 1, 2017, was approved in ICWD's June 27, 2017 letter to COC regarding Conditional Use Permit #2007-003/Coso. Revised Maximum Acceptable Drawdown and Drawdown at Cessation of Pumping values were provided to TEAM in the DBS&A report titled "Third Updated Groundwater Flow Model and Predictive Simulation Results, Coso Operating Company, Hay Ranch Water Extraction and Delivery System" dated August 24, 2017. On

November 2, 2018 COC requested an evaluation be performed to determine if pumping could be extended past May 31, 2019. In a letter dated November 27, 2018, ICWD agreed to allow COC to pump the remaining volume from the amount permitted to be extracted from June 1, 2017 through May 31, 2019. This allowed COC to pump up to the remaining 1,936 AF from November 14, 2018 through May 31, 2021. About 130 AF of the 1936 AF were extracted from November 14, 2018 to May 12, 2021.

Re-evaluation of pumping rates and duration based on an update of the model was conducted by DBS&A in May 2021. Continuation of pumping, at a rate not to exceed 800 acre-feet annually beginning on June 1, 2021, was approved in ICWD's May 28, 2021 letter to COC regarding Conditional Use Permit #2007-003/Coso. Revised Maximum Acceptable Drawdown and Drawdown at Cessation of Pumping values were provided in the DBS&A report titled "Fourth Updated Groundwater Flow Model and Predictive Simulation Results, Coso Operating Company, Hay Ranch Water Extraction and Delivery System" Dated May 27, 2021.

Monitoring and Reporting

During the June 2021 monthly hydrologic data collection event at the monitoring locations in the Rose Valley area, static depth-to-water (DTW) measurements, one visual observation of the Little Lake Ranch (LLR) Siphon Well Outflow and four sets of flow rates were collected by TEAM, as summarized in the attached table (Table 1). Data for this monthly field event were collected on May 16 and 17, 2021. Pressure transducer data were downloaded from monitoring units including one "BaroTroll" which records barometric pressure. Data for LADWP 816 Well were requested from LADWP.

Figure 1 presents the combined amount of groundwater pumped from the Hay Ranch North and South wells, in acre-feet, from December 25, 2009 through June 16, 2021 compared to the current maximum allowable pumping amount. The total amount of groundwater extracted from the Hay Ranch property from December 25, 2009 to June 16, 2021 (Hay Ranch CUP project total) is approximately 17,930 AF.

The maximum allowable pumping rate was 3,000 acre-feet per year (AFY) for December 25, 2009 through December 31, 2010; was 4,839 AFY from January 2011 through August 2013; was 3,040 AFY from September 2013 through June 2014; was 1,614 AFY from July 2014 through June 2016, extended by ICWD through September 2016; and is 1,611 AFY from June 2017 through May 2019, extended by ICWD through May 31, 2021. The current maximum allowable pumping rate is 800 AFY for the period of June 1, 2021 to May 31, 2025.

For the current annual pumping period (measured from May 12, 2021 to May 31, 2022) totalizers have indicated an estimated 5 AF of groundwater, of the 800 AF allowable, have been extracted from the Hay Ranch Property through June 16, 2021.

Trigger Levels and Maximum Acceptable Drawdowns

In the May 2021 DBS&A report, Trigger Levels and Maximum Acceptable Drawdowns were recommended for specific monitoring wells, based on a maximum allowable pumping rate of 800 AFY starting on June 1, 2021. These levels were incorporated into the updated Table 2 provided herein.

Based on data collected by TEAM during the June 2021 monitoring period, none of the Trigger Levels were exceeded at Hay Ranch Project monitoring wells which have baselines and trigger levels established (see Table 2). No Maximum Acceptable Drawdown levels have been reached during COC pumping under CUP #2007-03.

Operational Notes

There were no new significant operational issues observed during the reporting period.

Data Transmittal

TEAM posted updates to the “Coso” database on the ICWD web server. Current Hay Ranch Project hydrographs in PDF form were uploaded to the ICWD website (www.inyowater.org).

If you have any questions or require additional information, please contact TEAM at your convenience.

Sincerely,

TEAM Engineering & Management, Inc.



Greg M. Foote
Senior Environmental Scientist

TABLE 1
Field Observations of Rose Valley Hydrologic Monitoring Points
June 2021

| | | |
|---------------|--------------------------|--------------------------|
| Project Name: | Hay Ranch Project HMMP | Date: June 16 & 17, 2021 |
| Location: | Rose Valley, Inyo County | |
| Observer(s): | G. Foote | Page: 1 of 1 |

| Well ID | Monitoring Point | Date | Time | DTW (ft) | Flow (cfs) | GWE (ft amsl) | Method | Transducer Log Interval | Notes |
|---------|----------------------------------|----------|-------|----------|------------|---------------|-------------------|-------------------------|---|
| RV-10 | Dews | NM | NM | NM | NA | NA | TEAM manual read | NA | |
| RV-20 | LADWP 816 | 06/10/21 | 12:58 | 80.40 | NA | 3434.66 | LADWP manual read | NA | Data provided by LADWP |
| RV-30 | Cal Pumice | NM | NM | NM | NA | NA | TEAM manual read | Hourly | Measured to be dry in Jan. 2021 and previously. |
| RV-40 | Dunmovin | NM | NM | NM | NA | NA | TEAM manual read | NA | Discontinued due to new in-well infrastructure |
| RV-50 | Hay Ranch North | 06/16/21 | 12:42 | NM | No | NA | TEAM manual read | NA | 3,770,580,459 gallons (11,571 AF) pumped since 12/25/09 |
| RV-60 | Hay Ranch 1A | 06/16/21 | 13:04 | 192.61 | NA | 3239.56 | TEAM manual read | Hourly | |
| RV-61 | Hay Ranch 1B | 06/16/21 | 12:58 | 197.87 | NA | 3233.98 | TEAM manual read | Hourly | |
| RV-62 | Hay Ranch 1C | 06/16/21 | 12:54 | 193.31 | NA | 3238.19 | TEAM manual read | NA | |
| RV-70 | Hay Ranch South | 06/16/21 | 12:43 | NM | No | NA | TEAM manual read | NA | 2,071,853,713 gallons (6,358 AF) pumped since 12/25/09 |
| RV-80 | Hay Ranch 2A | 06/16/21 | 13:22 | 196.42 | NA | 3236.58 | TEAM manual read | Hourly | |
| RV-81 | Hay Ranch 2B | 06/16/21 | 13:19 | 203.15 | NA | 3229.48 | TEAM manual read | Hourly | |
| RV-82 | Hay Ranch 2C | 06/16/21 | 13:16 | 195.63 | NA | 3236.47 | TEAM manual read | NA | |
| RV-90 | Coso Jct Ranch | 06/16/21 | 11:54 | 174.34 | NA | 3228.79 | TEAM manual read | NA | |
| RV-100 | Coso Jct Store #1 | 06/16/21 | 12:06 | 145.46 | NA | 3226.66 | TEAM manual read | Hourly | |
| RV-110 | Davis Ranch North Well | NM | NM | NM | NA | NA | TEAM manual read | NA | Pump installed in DR North well in May 2021. |
| RV-111 | Davis Ranch South Well | 06/16/21 | 11:30 | 13.86 | NA | 3884.20 | TEAM manual read | NA | Pump installed in DR South well in Aug 2015 |
| RV-112 | Davis Ranch South Flow | 06/16/21 | 11:36 | NM | 0.019 | NM | TEAM manual read | NA | Flow actively managed |
| RV-120 | Red Hill Well (BLM) | 06/16/21 | 12:23 | 141.44 | NA | 3199.39 | TEAM manual read | Hourly | |
| RV-130 | G-36 | 06/16/21 | 10:24 | 182.93 | NA | 3197.09 | TEAM manual read | NA | |
| RV-140 | Lego | 06/16/21 | 10:16 | 225.03 | NA | 3197.82 | TEAM manual read | Hourly | |
| RV-150 | Cinder Road | 06/16/21 | 10:56 | 192.61 | NA | 3185.35 | TEAM manual read | Hourly | Surveyed measuring point removed, DTW measured to TOC |
| RV-160 | 18-28 GTH | 06/16/21 | 9:59 | 175.54 | NA | 3187.04 | TEAM manual read | NA | |
| RV-170 | Fossil Falls Campground | 06/16/21 | 10:42 | 141.77 | NA | 3175.00 | TEAM manual read | NA | |
| RV-180 | LLR North Well | 06/17/21 | 9:30 | 40.95 | NA | 3158.15 | TEAM manual read | Hourly | |
| RV-210 | LLR Dock Well | 06/17/21 | 9:46 | 6.72 | NA | 3147.42 | TEAM manual read | NA | Surveyed measuring point removed, DTW measured to TOC |
| RV-220 | LLR Stilling Well (lake surface) | 06/17/21 | 9:42 | 4.21 | NA | 3146.83 | TEAM manual read | Hourly | |
| RV-230 | LLR Little Lake Outflow | 06/17/21 | 10:00 | NA | 0.00 | NA | TEAM manual read | Hourly | Accuracy limitations (maintenance recommended) |
| RV-240 | LLR Coso Springs Flow | 06/17/21 | 10:15 | NA | 0.45 | NA | TEAM manual read | Hourly | |
| RV-245 | LLR North Culvert Flow | 06/17/21 | 10:34 | NA | 0.85 | NA | TEAM manual read | Hourly | |
| RV-250 | LLR Siphon Discharge | 06/17/21 | 10:28 | NA | Yes | NA | TEAM visual read | NA | Siphon Well flowing into Pond 2 |
| RV-260 | LLR Hotel Well | 06/16/21 | 11:09 | -0.09 | NA | 3138.87 | TEAM manual read | NA | Artesian, DTW measured above TOC |

NM - not measured; NA - not applicable; IO - Inoperative; UA - Data currently unavailable

DTW - Depth to water in feet (ft) below top of casing or other reference point; a negative DTW indicates that the groundwater elevation is above the surveyed reference point

Flow - In cubic feet per second (cfs)

GWE- Groundwater elevation in feet above mean sea level (ft amsl)

TABLE 2
Hay Ranch Project Groundwater Baselines and Trigger Levels
June 2021

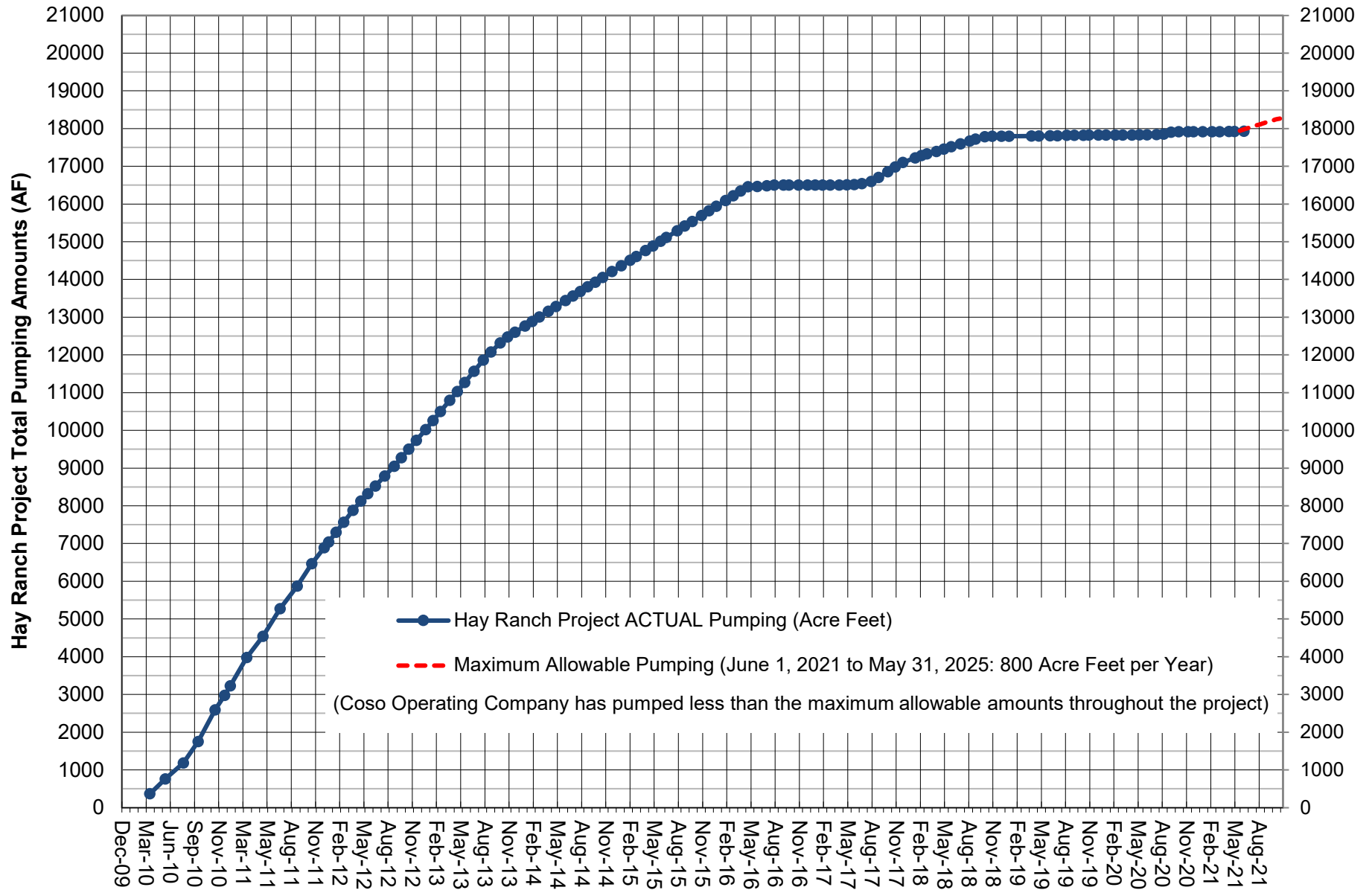
| Well ID | Monitoring Point | Baseline GWE ¹ (feet amsl) | Recent Date of Measurement | Recent GWE (feet amsl) | Recent GWE Compared to Baseline (feet) | Drawdown Trigger Level ² (feet) | Recent GWE Compared to Trigger Level (feet) | Maximum Acceptable Drawdown ² (feet) | Recent GWE Above Max. Drawdown (feet) |
|---------|-------------------|--|----------------------------|---------------------------|---|---|--|--|--|
| RV-80 | HR 2A | 3240.92 | 06/16/21 | 3236.58 | -4.34 | 13.6 | 9.26 | 17.6 | 13.26 |
| RV-90 | Coso Jct Ranch | 3230.65 | 06/16/21 | 3228.79 | -1.86 | 8.3 | 6.44 | 9.4 | 7.84 |
| RV-100 | Coso Jct Store #1 | 3227.59 | 06/16/21 | 3226.66 | -0.93 | 7.6 | 6.67 | 8.4 | 7.77 |
| RV-120 | Red Hill Well | 3200.66 | 06/16/21 | 3199.39 | -1.27 | 3.4 | 2.13 | 3.5 | 2.73 |
| RV-130 | G-36 | 3198.35 | 06/16/21 | 3197.09 | -1.26 | 3.0 | 1.74 | 3.1 | 2.34 |
| RV-140 | Lego | 3199.21 | 06/16/21 | 3197.82 | -1.39 | 2.1 | 0.71 | 2.5 | 1.31 |
| RV-150 | Cinder Road | 3186.92 | 6/16/21 (3) | 3185.35 | -1.57 | 2.0 | 0.43 | 2.2 | 0.83 |
| RV-160 | 18-28 GTH | 3187.67 | 06/16/21 | 3187.04 | -0.63 | 1.9 | 1.27 | 2.1 | 1.67 |
| RV-180 | LLR North Well | 3158.88 | 06/17/21 | 3158.15 | -0.73 | 1.1 | 0.37 | 1.3 | 0.67 |

1) GWE: Groundwater elevation measured in feet above mean sea level. Baseline GWEs set January 2010 and March 2011 and approved by Inyo County Water Department (ICWD).

2) Max DD and Trigger Level: Maximum Acceptable Drawdown and Drawdown Trigger Level from Table 4 of the "Fourth Updated Groundwater Flow Model and Predictive Simulation Results, Coso Operating Company Hay Ranch Water Extraction and Delivery System, Conditional Use Permit (CUP) 2007-003" Dated May 27, 2021.

3) Cinder Road well damaged in October 2017, surveyed measuring point removed. Accuracy of GWE calculation may be reduced.

FIGURE 1
ACTUAL AND MAXIMUM ALLOWABLE PUMPING AMOUNTS (TOTALS) FOR HAY RANCH PROJECT



Note: The max. allowable pumping is based on a rate of 3000 AF/yr for 12/09 to 12/10, 4839 AF/yr for 1/11 to 8/13, 3040 AF/yr from 9/13 to 6/14, 1,614 AF/yr from 7/14 to 6/16, 1611 AFY for 6/17 to 5/21 and 800 AFY from 6/21 to 5/25.