

Dr. Bob Harrington
Inyo County Water Department
135 South Jackson Street
Independence, CA 93526

July 29, 2011

RE: Summary of Hydrologic Monitoring Activities July 2011
Rose Valley, Inyo County, California
Hay Ranch Project Conditional Use Permit #2007-03

Dear Dr. Harrington:

This letter is intended to summarize hydrologic monitoring activities conducted in July 2011 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 (Coso) 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 has entered Phase 4: Ongoing Monitoring, Mitigation and Reporting.

Monitoring and Reporting

During the July 2011 monthly hydrologic data collection event at 30 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 was collected on July 20 and 21. Pressure transducer data were downloaded from 24 units, including one "BaroTroll" measuring barometric pressure. On July 12, a DTW measurement at LADWP 816 Well was taken by LADWP personnel.

At the Hay Ranch Property, Coso pumped groundwater from two production wells: Hay Ranch North and Hay Ranch South. For the first year of project pumping, from December 25, 2009 to December 24, 2010, a total of approximately 2992 acre feet (AF) of groundwater were extracted from these two wells (821 AF from the Hay Ranch North Well, and 2171 AF from the Hay Ranch South Well).

During the January 1, 2011 to July 20, 2011 period, a total of approximately 2207 AF of groundwater have been extracted from the Hay Ranch property (764 AF from the Hay Ranch North Well, and 1443 AF from the Hay Ranch South Well).

Figure 1 presents the combined amount of groundwater pumped from the Hay Ranch North and South wells (in AF) from December 25, 2009 through July 20, 2011 compared to a hypothetical pumping amount. The total amount of groundwater extracted from the Hay Ranch property from December 25, 2009 to July 20, 2011 was approximately 5273 AF. The hypothetical pumping amount assumes a pumping rate of approximately 3000 acre-feet per year (AFY) for December 25, 2009 through December 31, 2010 and assumes a pumping rate of approximately 4839 AFY from January 1, 2011 through December 31, 2011. These hypothetical pumping rates represent the maximum allowable pumping amounts for the 2010 and 2011 periods.

Trigger Levels and Maximum Acceptable Drawdowns

In Table 2 of the 2011 ICWD Addendum, Trigger Levels and Maximum Acceptable Drawdowns have been set based on an annual pumping rate of 4839 AFY. Approximately 19 months (1.6 years) have elapsed since the Hay Ranch Project's pumping was initiated. Based on data collected by TEAM during the July 2011 monitoring event, no Trigger Levels or Maximum Acceptable Drawdowns have been exceeded at Hay Ranch Project monitoring wells which have baseline and trigger levels established.

Operational Notes

At Davis Ranch South Well, the in-well pressure transducer experienced significant upward pressure drift during the monitoring period (June-July 2011) that was not confirmed by manual measurements. This is a recurring issue with this transducer. Therefore, a new transducer has been ordered and will be installed at to replace the malfunctioning unit. The Davis Ranch South Flume experienced upward pressure drifts due to root growth in the flume; the flume was cleaned and efforts were made to exclude roots.

At Hay Ranch 2B and 2C, the pressure transducers experienced power instability and were removed from the wells on July 20, 2011. These units will be repaired, and new units will be installed.

At the Red Hill Well, a new pressure transducer was installed to replace the previous unit which experienced power instability.

At Little Lake Ranch, one instance of water management was note worthy. For parts of the June-July 2011 monitoring period, the Dock Well was actively pumped. Temporary groundwater level drawdowns were captured by the in-well pressure transducer at the Dock Well.

Data Transmittal

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

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

Sincerely,

TEAM Engineering & Management, Inc.

Keith Rainville
Staff Geologist

TABLE 1
Field Observations of Rose Valley Hydrologic Monitoring Points
July 20-21, 2011

| | | |
|---------------|--------------------------|------------------------|
| Project Name: | Hay Ranch Project HMMP | Date: July 20-21, 2011 |
| Location: | Rose Valley, Inyo County | |
| Observer(s): | K. Rainville | 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 | 07/21/11 | 14:00 | 231.35 | | 3755.57 | TEAM manual read | NA | |
| RV-20 | LADWP 816 | 07/12/11 | 14:57 | 76.79 | | 3438.27 | LADWP manual read | NA | Data provided by LADWP |
| RV-30 | Cal Pumice | 07/20/11 | 10:35 | 254.46 | | 3251.43 | TEAM manual read | Hourly | |
| RV-40 | Dunmovin | 07/21/11 | 9:00 | 300.41 | | 3247.46 | TEAM manual read | NA | |
| RV-50 | Hay Ranch North | 07/20/11 | 13:27 | NM | Yes | NM | TEAM manual read | NA | 525,775,679 gallons (1614 AF) pumped since 12/25/09 |
| RV-60 | Hay Ranch 1A | 07/20/11 | 13:10 | 200.80 | | 3231.37 | TEAM manual read | Hourly | |
| RV-61 | Hay Ranch 1B | 07/20/11 | 13:16 | 223.63 | | 3208.22 | TEAM manual read | Hourly | |
| RV-62 | Hay Ranch 1C | 07/20/11 | 13:23 | 214.32 | | 3217.18 | TEAM manual read | Hourly | |
| RV-70 | Hay Ranch South | 07/20/11 | 13:28 | NM | Yes | NM | TEAM manual read | NA | 1,192,582,456 gallons (3660 AF) pumped since 12/25/09 |
| RV-80 | Hay Ranch 2A | 07/20/11 | 13:40 | 200.60 | | 3232.40 | TEAM manual read | Hourly | |
| RV-81 | Hay Ranch 2B | 07/20/11 | 13:45 | 227.85 | | 3204.78 | TEAM manual read | Hourly | |
| RV-82 | Hay Ranch 2C | 07/20/11 | 13:54 | 212.34 | | 3219.76 | TEAM manual read | Hourly | |
| RV-90 | Coso Jct Ranch | 07/20/11 | 10:54 | 172.24 | | 3230.89 | TEAM manual read | Hourly | |
| RV-100 | Coso Jct Store #1 | 07/20/11 | 12:53 | 145.31 | | 3226.81 | TEAM manual read | Hourly | |
| RV-110 | Davis Ranch North Well | 07/20/11 | 14:51 | 6.49 | | 3886.51 | TEAM manual read | Hourly | |
| RV-111 | Davis Ranch South Well | 07/20/11 | 15:15 | 11.25 | | 3886.75 | TEAM manual read | Hourly | |
| RV-112 | Davis Ranch South Flow | 07/20/11 | 15:43 | NA | 0.01 | NA | TEAM manual read | Hourly | |
| RV-120 | Red Hill Well (BLM) | 07/21/11 | 11:58 | 139.92 | | 3200.91 | TEAM manual read | Hourly | |
| RV-130 | G-36 | 07/21/11 | 13:33 | 180.14 | | 3199.88 | TEAM manual read | NA | |
| RV-140 | Lego | 07/21/11 | 13:20 | 222.19 | | 3200.66 | TEAM manual read | Hourly | |
| RV-150 | Cinder Road | 07/20/11 | 12:35 | 190.91 | | 3187.05 | TEAM manual read | Hourly | |
| RV-160 | 18-28 GTH | 07/21/11 | 13:04 | 173.85 | | 3188.73 | TEAM manual read | Hourly | |
| RV-170 | Fossil Falls Campground | 07/20/11 | 12:15 | 141.03 | | 3175.74 | TEAM manual read | NA | |
| RV-180 | LLR North Well | 07/21/11 | 10:15 | 40.17 | | 3158.93 | TEAM manual read | Hourly | |
| RV-210 | LLR Dock Well | 07/21/11 | 10:25 | 6.48 | | 3147.66 | TEAM manual read | Hourly | |
| RV-220 | LLR Stilling Well (lake surface) | 07/21/11 | 10:32 | 3.95 | | 3147.09 | TEAM manual read | Hourly | |
| RV-230 | LLR Little Lake Outflow | 07/21/11 | 11:05 | NA | 0.00 | NA | TEAM manual read | Hourly | No Flow |
| RV-240 | LLR Coso Springs Flow | 07/21/11 | 10:50 | NA | 0.39 | NA | TEAM manual read | Hourly | |
| RV-245 | LLR North Culvert Flow | 07/21/11 | 11:35 | NA | 2.79 | NA | TEAM manual read | Hourly | |
| RV-250 | LLR Siphon Discharge | 07/21/11 | 11:25 | NA | Yes | NA | TEAM visual read | NA | Siphon Well flowing into Pond 2 |
| RV-260 | LLR Hotel Well | 07/21/11 | 9:35 | 0.90 | | 3137.88 | TEAM manual read | Hourly | |

NM - not measured; NA - not applicable; IO - Inoperative

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
July 2011

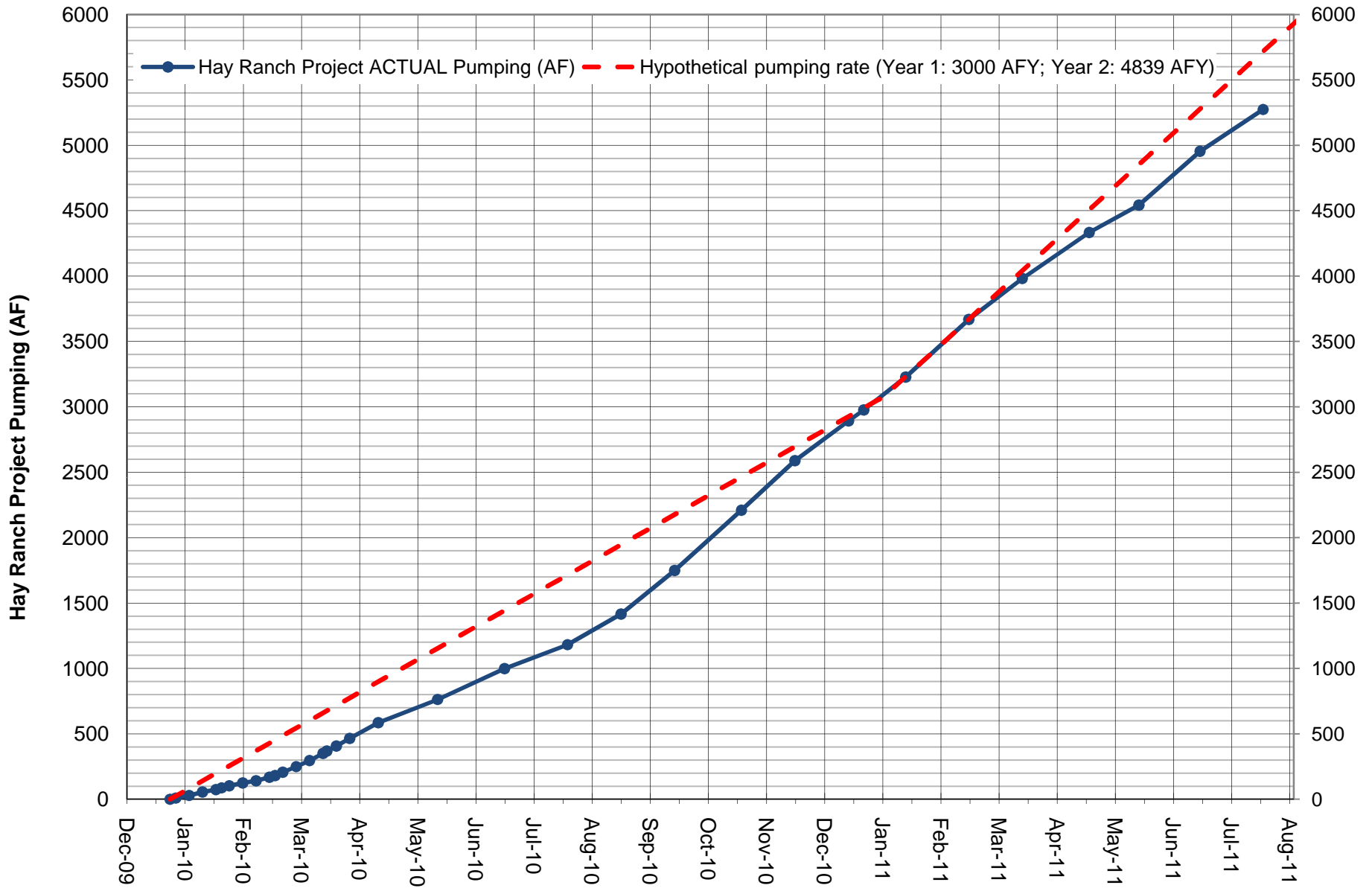
| Well ID | Monitoring Point | Baseline GWE ¹ (feet amsl) | Recent Date of Measurement | Recent GWE (feet amsl) | Recent GWE Compared to Baseline (feet) | Recent GWE Above Max DD ² (feet) | Trigger Level At Cessation of Pumping ³ (feet) | Recent GWE Compared to Trigger Level (feet) |
|---------|-------------------|--|-------------------------------|---------------------------|--|---|---|---|
| RV-40 | Dunmovin | 3252.73 | 07/21/11 | 3247.46 | -5.27 | 18.03 | 23.2 | 17.93 |
| RV-80 | HR 2A | 3240.92 | 07/20/11 | 3232.40 | -8.52 | 19.08 | 27.6 | 19.08 |
| RV-90 | Coso Jct Ranch | 3230.65 | 07/20/11 | 3230.89 | 0.24 | 11.94 | 11.3 | 11.54 |
| RV-100 | Coso Jct Store #1 | 3227.59 | 07/20/11 | 3226.81 | -0.78 | 9.32 | 9.5 | 8.72 |
| RV-120 | Red Hill Well | 3200.66 | 07/20/11 | 3200.91 | 0.25 | 4.15 | 1.8 | 2.05 |
| RV-130 | G-36 | 3198.35 | 07/21/11 | 3199.88 | 1.53 | 4.93 | 1.0 | 2.53 |
| RV-140 | Lego | 3199.21 | 07/21/11 | 3200.66 | 1.45 | 3.75 | 0.0 | 1.45 |
| RV-150 | Cinder Road | 3186.92 | 07/20/11 | 3187.05 | 0.13 | 2.43 | 0.2 | 0.33 |
| RV-160 | 18-28 GTH | 3187.67 | 07/21/11 | 3188.73 | 1.06 | 3.16 | 0.0 | 1.06 |
| RV-180 | LLR North Well | 3158.88 | 07/20/11 | 3158.93 | 0.05 | 1.35 | 0.0 | 0.05 |

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

2) Max DD: Maximum Acceptable Drawdown from Table 2 of "Addendum to HMMP for CUP#2007-003/Coso Operating Company, LLC"

3) Trigger Level at Cessation of Pumping from Table 2 of "Addendum to HMMP for CUP#2007-003/Coso Operating Company, LLC"

FIGURE 1
HYPOTHETICAL AND ACTUAL HAY RANCH PROJECT PUMPING



Note: Coso Operating Co. initiated Hay Ranch Project pumping on 12/25/09.

The "hypothetical pumping rate" is based on a pumping rate of 3000 AF per year for 12/25/09 to 12/31/10, and 4839 AF per year for 1/1/11 to 12/31/11.