

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

March 1, 2011

RE: Summary of Hydrologic Monitoring Activities February 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 February 2011 by TEAM Engineering & Management, Inc. (TEAM), related to the Hay Ranch Water Extraction Project and CUP #2007-03.

Phase 2: Startup Monitoring and Reporting

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 as outlined in the Hydrologic Monitoring and Mitigation Plan (HMMP).

During the February 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 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 February 16-17. Pressure transducer data were downloaded from 24 units, including one "BaroTroll" measuring barometric pressure. On February 1, a DTW measurement at LADWP 816 Well was taken by LADWP personnel.

At the Hay Ranch Property, Coso is pumping 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 second year of project pumping, December 25, 2010 to February 16, 2011, a total of approximately 676 AF of groundwater have been extracted from the Hay Ranch property (300 AF from the Hay Ranch North Well, and 376 AF from the Hay Ranch South Well).

Figure 1 presents the combined amount of groundwater pumped from the Hay Ranch North and South wells from December 25, 2009 through February 16, 2011 in acre feet (AF) compared to a hypothetical pumping amount. The total amount of groundwater extracted from the Hay Ranch property from December 25, 2009 to February 16, 2011 was approximately 3668 AF. The hypothetical pumping amount assumes a linear pumping rate of approximately 8.2 AF/day (equivalent to 3,000 AF/year) which starts on December 25, 2009 and projects through March 2011.

Dunmovin Trigger Level and Maximum Acceptable Drawdown

In Table 3.1 of the HMMP for the Hay Ranch Project, Trigger Levels have been set for the 1.2-year time period at specific monitoring wells. Approximately 14 months (1.2 years) has elapsed since the Hay Ranch Project's pumping was initiated. Based on data collected by TEAM during the February monitoring event, the groundwater elevation (GWE) in the Dunmovin Well has exceeded its 1.2-year Trigger Level and also exceeded its Maximum Acceptable Drawdown (Table 2).

Groundwater elevations are within 1.2-year Trigger Levels and above Maximum Acceptable Drawdowns at all other Hay Ranch Project monitoring wells which have baseline and trigger levels established.

The baseline groundwater elevation (GWE) for Dunmovin, set by Inyo County Water Department (ICWD) in January 2010, is 3252.73 feet. The GWE at Dunmovin as measured at 09:00 on February 16, 2011 was 3249.62 feet. The 1.2-year Trigger Level for Dunmovin is 1.5 feet. The Dunmovin GWE has decreased by 3.11 feet compared to its baseline, exceeding its 1.2-year Trigger Level drawdown by 1.61 feet. The Dunmovin GWE has also exceeded its Maximum Acceptable Drawdown level by 0.31 feet as of February 16, 2011. The maximum GWE recorded at Dunmovin Well was 3253.60 and occurred on January 21, 2010. The minimum GWE recorded at the Dunmovin Well was 3249.62 and occurred on February 16, 2011. ICWD and Coso were notified by TEAM in a timely manner regarding this continuing trigger level event.

Operational Notes

There were no significant operational issues of note for the period.

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
February 16-17, 2011

Project Name:	Hay Ranch Project HMMP	Date: February 16-17, 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	02/16/11	14:01	231.20		3755.72	TEAM manual read	NA	
RV-20	LADWP 816	02/01/11	14:36	77.71		3437.35	LADWP manual read	NA	Data provided by LADWP
RV-30	Cal Pumice	02/16/11	9:20	254.38		3251.51	TEAM manual read	Hourly	
RV-40	Dunmovin	02/16/11	9:00	298.25		3249.62	TEAM manual read	NA	
RV-50	Hay Ranch North	02/16/11	—	NM	Yes	NM	TEAM manual read	NA	365,281,581 gallons (1121 AF) pumped since 12/25/09
RV-60	Hay Ranch 1A	02/16/11	12:18	198.00		3234.17	TEAM manual read	Hourly	
RV-61	Hay Ranch 1B	02/16/11	12:26	231.33		3200.52	TEAM manual read	Hourly	
RV-62	Hay Ranch 1C	02/16/11	12:34	221.75		3209.75	TEAM manual read	Hourly	
RV-70	Hay Ranch South	02/16/11	—	NM	Yes	NM	TEAM manual read	NA	829,995,477 gallons (2547 AF) pumped since 12/25/09
RV-80	Hay Ranch 2A	02/16/11	13:08	198.75		3234.25	TEAM manual read	Hourly	
RV-81	Hay Ranch 2B	02/16/11	13:00	226.74		3205.89	TEAM manual read	Hourly	
RV-82	Hay Ranch 2C	02/16/11	12:52	212.40		3219.70	TEAM manual read	Hourly	
RV-90	Coso Jct Ranch	02/16/11	9:40	171.65		3231.48	TEAM manual read	Hourly	
RV-100	Coso Jct Store #1	02/16/11	9:53	144.61		3227.51	TEAM manual read	Hourly	
RV-110	Davis Ranch North Well	02/17/11	12:25	6.47		3886.53	TEAM manual read	Hourly	
RV-111	Davis Ranch South Well	02/17/11	12:40	11.24		3886.76	TEAM manual read	Hourly	
RV-112	Davis Ranch South Flow	02/17/11	12:55	NA	0.014	NA	TEAM manual read	Hourly	
RV-120	Red Hill Well (BLM)	02/16/11	11:49	139.75		3201.08	TEAM manual read	Hourly	
RV-130	G-36	02/16/11	11:30	180.05		3199.97	TEAM manual read	NA	
RV-140	Lego	02/16/11	11:16	222.02		3200.83	TEAM manual read	Hourly	
RV-150	Cinder Road	02/16/11	10:12	190.90		3187.06	TEAM manual read	Hourly	
RV-160	18-28 GTH	02/16/11	11:00	173.85		3188.73	TEAM manual read	Hourly	
RV-170	Fossil Falls Campground	02/16/11	10:43	140.99		3175.78	TEAM manual read	NA	
RV-180	LLR North Well	02/17/11	10:32	40.05		3159.05	TEAM manual read	Hourly	
RV-210	LLR Dock Well	02/17/11	10:43	6.06		3148.08	TEAM manual read	Hourly	
RV-220	LLR Stilling Well (lake surface)	02/17/11	10:53	3.55		3147.49	TEAM manual read	Hourly	
RV-230	LLR Little Lake Outflow	02/17/11	11:24	NA	0.03	NA	TEAM manual read	Hourly	
RV-240	LLR Coso Springs Flow	02/17/11	11:05	NA	0.32	NA	TEAM manual read	Hourly	
RV-245	LLR North Culvert Flow	02/17/11	11:43	NA	0.88	NA	TEAM manual read	Hourly	
RV-250	LLR Siphon Discharge	02/17/11	11:35	NA	Yes	NA	TEAM visual read	NA	Siphon Well flowing into Pond 2
RV-260	LLR Hotel Well	02/17/11	10:16	0.22		3138.56	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
February 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 ^{2,6} (feet)	Trigger Level At 1.2 year elapsed ^{3,6} (feet)	Recent GWE Compared to Trigger Level (feet)
RV-30	Cal Pumice	TBD ⁴	02/16/11	3251.51	NA	NA	6.9	NA
RV-40	Dunmovin	3252.73	02/16/11	3249.62	-3.11	-0.31	1.5	-1.61
RV-90	Coso Jct Ranch	3230.65	02/16/11	3231.48	0.83	3.33	1.8	2.63
RV-100	Coso Jct Store #1	3227.59	02/16/11	3227.51	-0.08	2.22	1.5	1.42
RV-120	Red Hill Well	3200.66	02/16/11	3201.08	0.42	TBD ⁵	TBD ⁵	NA
RV-130	G-36	3198.35	02/16/11	3199.97	1.62	2.72	0.2	1.82
RV-140	Lego	3199.21	02/16/11	3200.83	1.62	2.72	0.2	1.82
RV-150	Cinder Road	3186.92	02/16/11	3187.06	0.14	0.84	0.3	0.44
RV-160	18-28 GTH	3187.67	02/16/11	3188.73	1.06	2.06	0.2	1.26
RV-180	LLR North Well	3158.88	02/17/11	3159.05	0.17	0.57	0.2	0.37

1) GWE: Groundwater elevation measured in feet above mean sea level. Baseline GWEs set 1/25/10 and approved by Inyo County Water Department

2) Max DD: Maximum Acceptable Drawdown from HMMP Table 3-1

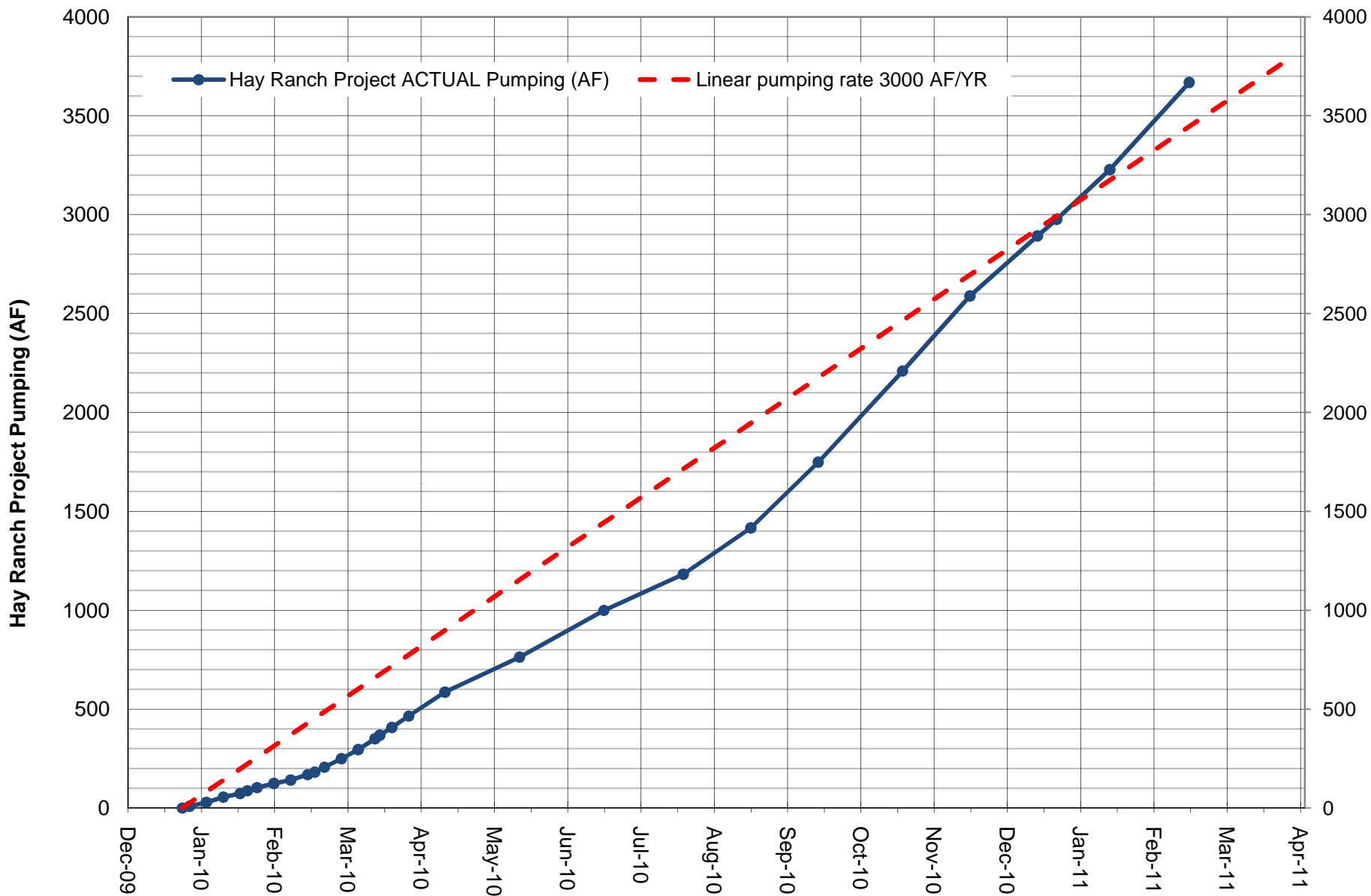
3) Trigger Level from HMMP Table 3-1

4) Cal Pumice Well baseline groundwater elevation will be set during Phase 3 Model Recalibration

5) Trigger Levels and Maximum Acceptable Drawdown levels for Red Hill Well will be set during Phase 3 Model Recalibration

6) From December 2010 to March 2011, Trigger Levels and Maximum Acceptable Drawdowns from HMMP Table 3-1 are under review as part of Phase 3 Model Recalibration

FIGURE 1
HYPOTHETICAL AND ACTUAL HAY RANCH PROJECT PUMPING



Note: Coso Operating Co. initiated Hay Ranch Project pumping on 12/25/09.
The "linear pumping rate" shown above is a hypothetical pumping rate of 8.2 AF/day (equivalent to 3000 AF per year).