

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

May 4, 2010

**RE: Summary of Hydrologic Monitoring Activities April 2010**  
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 April 2010 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 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 April 2010 monthly hydrologic data collection event, 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 from 30 monitoring locations in the Rose Valley area, as summarized in the attached table (Table 1). Data for this monthly field event was collected on April 13 and 14. Pressure transducer data were downloaded from 24 units, including one "BaroTroll" measuring barometric pressure. On April 6, a DTW measurement at LADWP 816 Well was taken by LADWP personnel.

A Hay Ranch South Production Well pump totalizer reading of 932,626,000 gallons was taken by TEAM at 10:55, April 13. This reading represents approximately 190,826,000 gallons (586 Acre Feet) of groundwater extracted from the Hay Ranch South Production Well since project initiation on December 25, 2009.

## **Data Transmittal**

With guidance from ICWD and the HMMP, TEAM produced the initial quarterly report on the Hay Ranch Project: "Hay Ranch Project Conditional Use Permit, Hydrologic Monitoring and Reporting, First Quarter 2010, Inyo County, California." This report summarizes Rose Valley monitoring activities during Phase 1 of the Hay Ranch Project in 2009 and during Phase 2 monitoring in the first quarter 2010. This report presents groundwater elevation, surface flow, water quality and Hay Ranch South Production Well pumping data in graphical form.

In addition, TEAM assisted in Hay Ranch Project orientation and data transfer with the new consulting firm, Daniel B. Stephens & Associates, retained to recalibrate the Rose Valley hydrologic groundwater model. A field visit with ICWD, TEAM and Daniel B. Stephens & Associates staff was conducted on April 30, 2010 to examine the details of specific Rose Valley groundwater and surface water monitoring points.

TEAM also posted updates to the "Coso" database on the ICWD web server. New Rose Valley hydrographs in PDF form were uploaded to the ICWD website.

\* \* \* \* \*

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**  
**April 13-14, 2010**

Project Name:	Hay Ranch Project HMMP	Date: April 13-14, 2010
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	4/13/10	9:51	231.89		3755.03	TEAM manual read	NA	
RV-20	LADWP 816	4/6/10	14:00	80.22		3434.84	LADWP manual read	NA	Data provided by LADWP
RV-30	Cal Pumice	4/13/10	10:18	247.76		3258.13	TEAM manual read	Hourly	
RV-40	Dunmovin	4/14/10	9:05	295.13		3252.74	TEAM manual read	NA	
RV-50	Hay Ranch North	NM	NM	NM		NM	TEAM manual read	NA	No DTW, well area under construction
RV-60	Hay Ranch 1A	4/13/10	10:34	192.25		3239.92	TEAM manual read	Hourly	
RV-61	Hay Ranch 1B	4/13/10	10:43	204.24		3227.61	TEAM manual read	Hourly	
RV-62	Hay Ranch 1C	4/13/10	10:49	194.83		3236.67	TEAM manual read	Hourly	
RV-70	Hay Ranch South	4/13/10	10:55	NM	Yes	NM	TEAM manual read	NA	190,826,000 gallons (586 AF) pumped since 12/25/09
RV-80	Hay Ranch 2A	4/13/10	11:02	194.75		3238.25	TEAM manual read	Hourly	
RV-81	Hay Ranch 2B	4/13/10	11:09	210.52		3222.11	TEAM manual read	Hourly	
RV-82	Hay Ranch 2C	4/13/10	11:15	198.39		3233.71	TEAM manual read	Hourly	
RV-90	Coso Jct Ranch	4/13/10	12:06	171.22		3231.91	TEAM manual read	Hourly	
RV-100	Coso Jct Store #1	4/13/10	11:39	142.83		3229.29	TEAM manual read	Hourly	
RV-110	Davis Ranch North Well	4/14/10	12:01	6.47		3886.53	TEAM manual read	Hourly	
RV-111	Davis Ranch South Well	4/14/10	12:16	11.24		3886.76	TEAM manual read	Hourly	
RV-112	Davis Ranch South Flow	4/14/10	12:45	NA	0.16	NA	TEAM manual read	Hourly	
RV-120	Red Hill Well (BLM)	4/13/10	12:29	140.10		3200.73	TEAM manual read	Hourly	
RV-130	G-36	4/13/10	12:50	180.08		3199.94	TEAM manual read	NA	
RV-140	Lego	4/14/10	10:38	222.24		3200.61	TEAM manual read	Hourly	
RV-150	Cinder Road	4/14/10	11:32	191.03		3186.93	TEAM manual read	Hourly	
RV-160	18-28 GTH	4/14/10	10:17	174.04		3188.54	TEAM manual read	Hourly	
RV-170	Fossil Falls Campground	4/14/10	11:23	141.04		3175.73	TEAM manual read	NA	
RV-180	LLR North Well	4/13/10	13:51	39.96		3159.14	TEAM manual read	Hourly	
RV-210	LLR Dock Well	4/13/10	14:02	5.84		3148.30	TEAM manual read	Hourly	
RV-220	LLR Stilling (lake surface)	4/13/10	14:08	3.31		3147.73	TEAM manual read	Hourly	
RV-230	LLR Little Lake Outflow	4/13/10	14:40	NA	0.32	NA	TEAM manual read	Hourly	
RV-240	LLR Coso Springs Flow	4/13/10	14:23	NA	0.58	NA	TEAM manual read	Hourly	
RV-245	LLR North Culvert Flow	4/13/10	15:03	NA	1.35	NA	TEAM manual read	Hourly	
RV-250	LLR Siphon Discharge	4/13/10	14:50	NA	Yes	NA	TEAM visual read	NA	Discharging into Pond 2
RV-260	LLR Hotel Well	4/13/10	13:25	-0.20		3138.98	TEAM manual read	NA	Pressure gauge reads 0.25-0.30 psi

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

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

GWE- Groundwater elevation in feet above mean sea level