

**SAMPLE ANNUAL MAINTENANCE  
AND REPAIR REPORT**

**2012-13 MAINTENANCE AND REPAIR REPORT**  
**ON TELEMETRY COMPONENT OF LADPW**  
**BRIDGESTONE RUBBER DAMS**

**CONTRACT:BRIDGESTONE RUBBER DAM SYSTEM  
TELEMETRY COMPONENT MAINTENANCE  
SERVICES (2009-IT001)**

**JULY 27, 2013**

**VERIFICATION STATEMENT:**

To the best of my knowledge, the following information presented in this inspection report is certified to be true and correct.

**PRIME CONTRACTOR:**

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Repair work authorized for the contract BRIDGESTONE RUBBER DAM SYSTEM TELEMETRY COMPONENT MAINTENANCE SERVICES (2009-IT001) for the 2012-13 contract year is described in the four Repair Reports listed above. All work authorized in the Reports has been completed as of the June 27, 2013 date of this Annual Repair Report.

RUBBER DAM MAINTENANCE & REPAIR REPORT

INTRODUCTION

CONTRACT: BRIDGESTONE RUBBER DAM SYSTEM PRIMARY MAINTENANCE SERVICES  
(2008-AN045)

#### INTRODUCTION FOR 2013-14 RUBBER DAM MAINTENANCE & REPAIR REPORT

The LADPW Contract BRIDGESTONE RUBBER DAM SYSTEM PRIMARY MAINTENANCE SERVICES was awarded in early June of 2009 to \_\_\_\_\_ and its consultant \_\_\_\_\_. The intention of the multi-year contract was to provide inspection and maintenance services for the 16 LADPW Bridgestone Rubber Dams. Inspections of all facilities were conducted by \_\_\_\_\_ in December 2013. Please refer to the Report on 2013-14 Inspection of LADPW Rubber Dams for further details.

Each of the 16 Bridgestone Rubber Dam systems consists of an inflatable rubber bladder and associated mechanical and control equipment. The Obermeyer Gate at Hansen Spreading Grounds consists of a set of steel plates with rubber bladders underneath. In general the rubber component at each site was found to be in good condition including repairs made in previous years.

The Rubber Dams are inflated whenever flows permit during the LADPW storm season which runs from October 15 to April 15 each year. The Rubber Dams are operated occasionally during the remainder of the year outside of the storm season.

Maintenance at each of the 17 sites was performed as necessary in accordance with the project specifications as documented in the first 17 sections of this report. Maintenance dates are listed as the same date as the inspection date as a significant part of the routine maintenance was accomplished at the same time as the inspection. Further maintenance was accomplished in subsequent visits as necessary.

Copies of Repair Reports NO. 2013-1, NO. 2013-2, NO. 2013-3, 2013-4, NO. 2013-5, NO. 2013-6, NO. 2013-7 and NO. 2013-8 are included in Section 18 of this report.

RUBBER DAM MAINTENANCE REPORT

1) SAN GABRIEL RIVER @ SANTA FE DAM: TG568-D6

Project Name	Santa Fe @ I 210	No. TG 568-D6	SF_FINAL_RO
Size	6.0' H x 575' L x 1/1.0 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed 1995		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

**(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket adjusted to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6 Monitored all areas of small radius bending for further cover rubber cracking and No new damage observed. Right abutment cracking repaired May 2013.

**(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

2) SAN GABRIEL RIVER @ VALLEY BLVD. #1: TG637-G3

## RUBBER DAM MAINTENANCE REPORT

Project Name	Valley # 1 @ Valley Blvd.	No. TG 637-G3	V-1_FINAL_R0
Size	10.0' H x ~450' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed 1999		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### (1) MAINTENANCE RESULT

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket adjusted to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating operating range.
- 5 Monitored level transducer performance to assure it was working within operating operating range.

### (2) COMMENTS

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

3) SAN GABRIEL RIVER @ VALLEY BLVD. #2: TG637-F4

RUBBER DAM MAINTENANCE REPORT

Project Name	Valley # 2 @ Valley Blvd.	No. TG 637-F4	V-2_FINAL_RO
Size	8.0' H x ~450' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed 2003		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

**(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket adjusted to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.

**(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

4) SAN GABRIEL RIVER @ VALLEY BLVD. #3: TG637-E5

## RUBBER DAM MAINTENANCE REPORT

Project Name	Valley # 3 @ Valley Blvd.	No. TG 637-E5	V-3_FINAL_RO
Size	8.0' H x ~450' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed 2003		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### **(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6) Removed debris from water level sensor intake.

### **(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

5) SAN GABRIEL RIVER @ BEVERLY BLVD. #1: TG676-J3

## RUBBER DAM MAINTENANCE REPORT

Project Name	San Gabriel #1 @ Beverly Blvd.	No. TG676-J3	SG-1_FINAL_RO
Size	5.5' H x 200' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	1999		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### **(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6) Monitored Seepage under Rubber Dam foundation. No seepage noted.
- 7) Monitored area to be repaired at right abutment. No change noted.

### **(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

6) SAN GABRIEL RIVER @ WHITTIER BLVD. #2: TG676-H4

## RUBBER DAM MAINTENANCE REPORT

Project Name	San Gabriel # 2 @ Whittier Blvd	No. TG 676-H4	SG-2_FINAL_RO
Size	7.66' H x 200' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	1999		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### **(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6) Monitored damaged area under fin. No change noted.

### **(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

7) SAN GABRIEL RIVER @ WASHINGTON BLVD. #3: 676-G7

## RUBBER DAM MAINTENANCE REPORT

Project Name	San Gabriel # 3 @ Washington Blvd	No. 676-G7	SG-3_FINAL_RO
Size	6.0' H x 200' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Replaced 1998		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### **(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6) Monitored status of aging Jamesbury Valve. No change noted.

### **(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

8) SAN GABRIEL RIVER @ SLAUSON AVE. #4: 706-G1

## RUBBER DAM MAINTENANCE REPORT

Project Name	San Gabriel # 4 @ Slauson Ave.	No. 706-G1	SG-4_FINAL_RO
Size	7.66' H x 200' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Replaced after March 2004		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### **(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6) Monitored status of aging Jamesbury Valve. Valve failed.

### **(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

9) SAN GABRIEL RIVER NEAR TELEGRAPH AVE. #5: 676-F3

RUBBER DAM MAINTENANCE REPORT

Project Name	San Gabriel # 5 @ Telegraph Rd.	No. 675-F3	SG-5_FINAL_RO
Size	6.0' H x 200' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Replaced 1999		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

**(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6) Monitored status of aging Jamesbury Valve. Valve failed.

**(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

10) SAN GABRIEL RIVER@ GOLDEN STATE FWY (I-5). #6: 706-F4

RUBBER DAM MAINTENANCE REPORT

Project Name	San Gabriel # 6 @ Florence Ave.	No. 706-F4	SG-6_FINAL_RO
Size	6.0' H x 200' L x 1/0.5 H	Maintenance Date	December 2103
Owner	LADPW	Inspector	
Installation Date	Replaced 1999		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

**(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6) Monitored status of aging Jamesbury Valve. Valve failed.

**(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

11) SAN GABRIEL RIVER@ FIRESTONE BLVD. #7: 706-D6

## RUBBER DAM MAINTENANCE REPORT

Project Name	San Gabriel # 7 @ Firestone Blvd.	No. 706-D6	SG-7_FINAL_RO
Size	6.0' H x 200' L x 1/0.5 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Replaced 1998		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### **(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6) Monitored status of aging Jamesbury Valve. Valve OK.

### **(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

12) DDI-23 RIO HONDO SPREADING GROUNDS: 676-C7

## RUBBER DAM MAINTENANCE REPORT

Project Name	DDI-23 @ Rio Hondo SG	No. 676-C7	DDI-23_FINAL_RO
Size	6.0' H x 25' L x 1/0.0 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed 1999		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### **(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.

### **(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

13) CITRUS SPREADING GROUNDS: 599-B2

## RUBBER DAM MAINTENANCE REPORT

Project Name	Citrus @ Citrus SG	No. 599-B2	CI_FINAL_RO
Size	6.0' H x 30' L x 1/0.0 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Replaced after 3/2004		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### (1) MAINTENANCE RESULT

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.

### (2) COMMENTS

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

14) BEN LOMOND SPREADING GROUNDS: 599-C3

RUBBER DAM MAINTENANCE REPORT

Project Name	Ben Lomond @ Ben Lomond SG	No. 599-C3	BL_DRAFT_RO
Size	6.0' H x 25' L x 1/0.0 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed 1999		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

**(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6 Monitor 3" long crack on underside at right abutment. No change noted.

**(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

15) FORBES SPREADING GROUNDS: 599-H1

RUBBER DAM MAINTENANCE REPORT

Project Name	Forbes @ Forbes SG	No. 599-H1	FORBES_FINAL_RO
Size	6.83' H x L x 1/0.0 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

**(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.

**(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

16) WALNUT CREEK SPREADING GROUNDS: 599-D7

RUBBER DAM MAINTENANCE REPORT

Project Name	Walnut Creek @ WC SG	No. 599-D7	WC_FINAL_RO
Size	2.5' H x 25' L x 1/0.0 H	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed 1999		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

**(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

Control House

Specification Items i-ii Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

Rubber Dam

Specification Items i-iv Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

Mechanical Automatic Deflation System

Specification items i-ii Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

Conclusionary Maintenance Operation

Specification Item i The facility was tested for proper operation after all maintenance work.

Maintenance notes taken while completing the items above:

- 1 Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2 The mechanical deflation bucket operated to maximize performance.
- 3 Cleaned off the touch screen and checked operation.
- 4 Monitored pressure transducer performance to assure it was working within operating operating range.
- 5 Monitored level transducer performance to assure it was working within operating range.
- 6 Monitored damaged area at right abutment

**(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

RUBBER DAM MAINTENANCE REPORT

17) HANSEN SPREADING GROUNDS

## RUBBER DAM MAINTENANCE REPORT

Project Name	Hansen @ Hansen SG	No.	H_FINAL_RO
Size	~7.0' H x ~60' L x VERTICAL WALLS	Maintenance Date	December 2013
Owner	LADPW	Inspector	
Installation Date	Installed 2012		
Location	Los Angeles County, California, USA		
Purpose	Groundwater Recharge		

### **(1) MAINTENANCE RESULT**

Rubber Dam maintenance was performed as necessary in accordance with the project specifications:

#### Control House

Specification Items i-ii      Maintained manhole covers, floor hatches, minor electrical power, and control circuitry according to specifications. Replaced any damaged or missing items as needed.

#### Rubber Dam

Specification Items i-iv      Maintained the blower, filters, clamping bolts, deflation valves, and drain line as necessary.

#### Rubber Dam Bypass Gates (where applicable)

Specification Items i-ii      Maintained as needed electrical power connections and mechanical aspects affiliated with the bypass gates.

#### Electrical Overload Breaker Box and Rubber Dam Control Panel and Appurtenances

Specification items i-vi      Maintained the control house electrical overload breaker box, control panel, touchscreen, pressure gage system, level monitoring system, transducers, sensors, motor valves and programmable logic controller according to specifications.

#### Mechanical Automatic Deflation System

Specification items i-ii      Maintained the stilling well, bucket, valve, and connections of the automatic mechanical deflation system as needed according to specifications.

#### Conclusionary Maintenance Operation

Specification Item i      The facility was tested for proper operation after all maintenance work.

#### Maintenance notes taken while completing the items above:

- 1      Performed troubleshooting of the Controller PLC for minor alarms found at site.
- 2      Cleaned off the touch screen and checked operation.
- 3      Monitored pressure transducer performance to assure it was working within operating operating range.
- 4      Monitored level transducer performance to assure it was working within operating range.
- 5      Cleaned air pressure regulator.

### **(2) COMMENTS**

General Comments - See MAINTENANCE & REPAIR REPORT INTRODUCTION

**RUBBER DAM TELEMETRY MAINTENANCE CONTRACT (2009-IT001) AGREEMENT 002089**

**REPAIR REPORT NO. TLM 2012-1 REV 0**

**INCREASE IN NUMBER OF STATIONS TO BE INSPECTED AND MAINTAINED FROM 17 TO 19**

**Background**

The Bridgestone Rubber Dam System Telemetry Component Maintenance Services contract listed 17 sites to be inspected and maintained in Tasks 1.0 and 2.0. The 16 LADPW Rubber Dam sites plus Rose Hills Repeater, Rio Hondo Headworks Repeater and LADPW Headquarters Base Station total 19 stations to be inspected and maintained. During the LADPW Headquarters part of the mandatory project walkthrough, A Thousand Hills pointed out this difference between the 17 station total and the actual 19 stations that need inspection and maintenance. The response from LADPW at that time was that the payment adjustment for the additional two sites would be made after award of the contract at the per station price quoted by the winning bidder.

**Recommendation & Description of Repair**

- 1) Continue to inspect all 19 stations.
- 2) Continue to maintain all 19 stations.

**Estimated Cost**

. Cost for work under this repair report to cover inspection and maintenance of two additional stations including, expenses, overhead & profit to accomplish the work listed as above is estimated as follows:

**REPAIR REPORT NO. TLM 2012-1-- INCREASE IN NUMBER OF STATIONS TO BE INSPECTED AND MAINTAINED FROM 17 TO 19=**

**Estimated Time to Complete Work**

Work to be completed by August 1<sup>st</sup>, 2013.

RUBBER DAM TELEMETRY MAINTENANCE CONTRACT (2009-IT001) AGREEMENT 002089

REPAIR REPORT NO. TLM 2012-2 REV 1

SOFTWARE FOR LADPW VIRTUAL WINDOWS SERVER 2008 R2

Background

In order to provide the ability to have multiple concurrent user access to the Rubber Dam graphic user interface a change in operating system is being made from the existing Windows XP Pro environment to a Virtual Windows Server 2008 R2 environment. A change has also been made under the Primary Rubber Dam Maintenance contract from the Siemens S7-200 PLC platform to the Siemens S7 1200 Platform. This Repair report replaces Tasks 3.1, 3.2 and 3.3 and provides the latest updates to software compatible for use in the Virtual Windows Server 2008 R2 environment in connection with the Siemens S71-200 PLCs and Siemens KTP600/1000 Touchscreens.

Recommendation & Description of Repair

Provide the following updated software to be compatible with Virtual Windows Server 2008 R2 and the Siemens S7-1200 PLC & KTP600/1000 HMI touchscreens.

- 1) KEPServer EX V 5.9.170.0 Communications Software w/1 year software warranty and maintenance for use in the Windows Virtual Server 2008 R2 environment w/Siemens S7-1200 PLCs. This item replaces Task 3.1.
- 2) KEPServerEX Siemens S7-200/S7-300/ S7-400/S7-1200 Ethernet OPC Server w/1 year software warranty and maintenance for use in the Windows Virtual Server 2008 R2 environment w/Siemens S7-1200 PLCs. This item replaces Task 3.3.
- 3) Siemens S7 Basic V11 SP2 UPD 4 w/1 year software warranty and maintenance for use in the Windows Virtual Server 2008 R2 environment w/Siemens S7-1200 PLCs and KTP600/1000 HMI touchscreens.

Estimated Cost

Estimated Time to Complete Work

Work to be completed by December 1<sup>st</sup>, 2012.

**RUBBER DAM TELEMTRY MAINTENANCE CONTRACT (2009-IT001) AGREEMENT 002089**

**REPAIR REPORT NO. TLM 2012-3 REV 0**

**ADD GPS TIMING TO 3 STATIONS (HQ, ROSE HILLS REPEATER, RIO HONDO REPEATER)**

**Background**

The Bridgestone Rubber Dam System telemetry system consists of 16 LADPW Rubber Dam sites plus Rose Hills Repeater, Rio Hondo Headworks Repeater and LADPW Headquarters Base Station. Because the station to station communications are Ethernet radio precise timing is required at the base station and repeater sites to allow these sites to control network communications to avoid the radio frequency collisions that would otherwise occur. The potential for radio frequency collisions is made more likely by the plan to have the SGTS telemetry network use the same radio frequency as the Rubber Dam telemetry network. The satellite based GPS system provides GPS receivers not only position information but highly accurate time information. The most reliable and cost effective means of providing the time synchronization necessary for the Rubber Dam telemetry network is through the use of this timing aspect of the GPS system.

**Recommendation & Description of Repair**

- 1) Add GPS timing hardware, software and programming to the LADPW HQ, Rose Hills, Repeater and Rio Hondo Repeater sites.

**Estimated Cost**

**Estimated Time to Complete Work**

Work to be completed by August 1<sup>st</sup>, 2013.

**RUBBER DAM TELEMETRY MAINTENANCE CONTRACT (2009-IT001) AGREEMENT 002089**

**REPAIR REPORT NO. TLM 2012-4 REV 2**  
**REPAIR TELEMETRY WIRING DAMAGE DUE TO VANDALISM AT VALLEY 2**

**Background**

On March 12<sup>th</sup>, 2013 vandalism damage to the interior of the control house at Valley 2 Rubber Dam was discovered. All copper wires larger than 1/16 in diameter had been cut. In addition, various telemetry electronic components as well as the coaxial antenna cable had been removed and cut. This repair report covers the repair of the telemetry wiring only.

**Recommendation & Description of Repair**

1) Repair the telemetry and PLC wiring damage at Valley 2. Replace missing wiring as needed within the Rubber Dam control panel and the coaxial cable between the control panel and the base of the antenna mast. Test all telemetry control & monitoring functions when repairs are complete.

**Estimated Cost**

**Estimated Time to Complete Work**

Work to be completed by August 2, 2013

**RUBBER DAM TELEMETRY MAINTENANCE CONTRACT (2009-IT001) AGREEMENT 002089**

**REPAIR REPORT NO. TLM 2011-5 REV 0 DRAFT 1**  
**PROGRAMMING FOR LADPW VIRTUAL WINDOWS SERVER 2008 R1**

**Background**

In order to provide the ability to have multiple concurrent user access to the Rubber Dam graphic user interface a change in operating system is being made from the existing Windows XP Pro environment to a Virtual Windows Server 2008 R1 environment. A change has also been made under the Primary Rubber Dam Maintenance contract from the Siemens S7-200 PLC platform to the Siemens S7 1200 Platform.

**Recommendation & Description of Repair**

Provide programming of Wonderware/Intouch operator interface and KEPServerEX software to be compatible with Virtual Windows Server 2008 R1 and the Siemens S7-1200 PLC.

**Estimated Time to Complete Work**

Work to be completed by August 1, 2012

**RUBBER DAM TELEMETRY MAINTENANCE CONTRACT (2009-IT001) AGREEMENT 002089**

**REPAIR REPORT NO. TLM 2012-6 REV 0**  
**INTOUCH PROGRAM IMPROVEMENTS**

**Background**

The Bridgestone Rubber Dam System telemetry system consists of 16 LADPW Rubber Dam sites plus Rose Hills Repeater, Rio Hondo Headworks Repeater and LADPW Headquarters Base Station. Data from each of the 16 sites passes through the OPC server KEPServerEX located on the Windows 2008 R2 Virtual Server located in the LADPW Annex. Control and monitoring of the 16 Rubber Dam sites is achieved through the use of Wonderware / Intouch operator interface software which used KEPServerEX datapoints. The existing Intouch application is ~ 12 years old and will benefit from improvements that reflect the expanded capabilities and increased speed of the upgraded PLC/radio network.

**Recommendation & Description of Repair**

- 1) Revise & modernize the Intouch operator interface on the Rubber Dam Virtual Server. .

**Estimated Cost**

**Estimated Time to Complete Work**

Work to be completed by August 1<sup>st</sup>, 2013.

**RUBBER DAM TELEMTRY MAINTENANCE CONTRACT (2009-IT001) AGREEMENT 002089**

**REPAIR REPORT NO. TLM 2012-7 REV 0**  
**PROGRAMMING FOR RADIO NETWORK AT 5 SITES**

**Background**

Changes are required in the programming of the LADPW Rubber Dam telemetry network to reflect the change of radio frequency from 900 MHz Spread spectrum radios to 412 MHz spread licenced frequency radios. Additional changes are required to allow the Rubber Dam telemetry network to work alongside other networks also using the 412 MHz frequency. These changes include provisions for "report by exception" transmissions, timed polling for all sites and provision for the incorporation of GPS timing. These changes require significant reprogramming of the PLC to PLC communications blocks and data transfer functions.

**Recommendation & Description of Repair**

Reprogram communications blocks and data transfer functions for S7-1200 PLCs at 5 sites. Program 412 MHz Ethernet Radios for PLC to PLC communications at 5 sites (sites include HQ, Rose Hills Repeater, Valley 1, Valley 2 & Valley 3).

**Estimated Cost**

**Estimated Time to Complete Work**

Work to be completed by August 1<sup>st</sup>, 2013.