

**Flood Control Project Maintenance
Levee Inspections**

Fall 2014 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

ST0012		Overall LMA Rating	Total LMA Miles						
Sacramento Maintenance Yard Willow Slough Bypass		A	12.51						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence		
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles	
<i>Earthen Levee</i>									
Encroachments					0.58				
Erosion / Bank Caving	0.05		0.05	0.40%					
<i>Supplemental</i>									
DWR UCIP Field Study					0.05				
<i>LMA Totals:</i>	0.05	0.00	0.05	0.40%	0.63	0.00	0.00	0.00	
Unit No. 01 Willow Slough Bypass or North Levee LB		Overall Unit Rating	Total Unit Miles						
ST0012		A	5.05						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence		
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles	
<i>Earthen Levee</i>									
Encroachments					0.31				
<i>Supplemental</i>									
DWR UCIP Field Study					0.02				
<i>Unit Totals:</i>	0.00	0.00	0.00	0.00%	0.33	0.00	0.00	0.00	
Unit No. 02 Willow Slough Bypass or South Levee RB		Overall Unit Rating	Total Unit Miles						
ST0012		A	7.46						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence		
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles	
<i>Earthen Levee</i>									
Encroachments					0.27				
Erosion / Bank Caving	0.05		0.05	0.67%					
<i>Supplemental</i>									
DWR UCIP Field Study					0.03				
<i>Unit Totals:</i>	0.05	0.00	0.05	0.67%	0.30	0.00	0.00	0.00	

**Flood Control Project Maintenance
Levee Inspections
LMA District Cover Sheet
Fall 2014 Levee Inspection Results**

Sacramento Maintenance Yard Willow Slough Bypass

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			A	

** Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

* **SPRING INSPECTIONS:** Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2014 Levee Inspection Results

Sacramento Maintenance Yard Willow Slough Bypass

Waterway		Bank	Unit Miles
Unit No. 01 Willow Slough Bypass or North Levee		Left	5.05
	Spring (March - May)	Summer (June - August)	(September - November) Fall Winter (December - February)
Unit Maintenance Rating (Fall Only)			A
Date of Inspection	04/15/2014 - 04/15/2014		11/13/2014 - 11/13/2014
DWR Inspector	John Williamson		Clay Thomas
Accompanied By	Casey Lund Sacramento Maintenance Yard		Casey Lund Sacramento Maintenance Yard

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	11/13/2014 11/13/2014	Clay Thomas

LM Start		Rating **	A	Issue No.	6
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals				
DWR ID	DWR_ST0012_01_s_2013_6				
Action/Comments					
Inspector Comments: Sacramento Maintenance Yard has copies of their levee manuals.					

No Photos

LM Start		Rating **	A	Issue No.	7
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment				
DWR ID	DWR_ST0012_01_s_2013_7				
Action/Comments					
Inspector Comments: Sacramento Maintenance Yard has a stockpile of flood response material.					

No Photos

LM Start		Rating **	A	Issue No.	8
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training				
DWR ID	DWR_ST0012_01_s_2013_8				
Action/Comments					
Inspector Comments: Sacramento Maintenance Yard has a written flood response plan and flood response training.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	11/13/2014 11/13/2014	Clay Thomas

LM Start	0.00	Rating **	A	Issue No.	271
LM End	5.09	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation			°	°
DWR ID	DWR_ST0012_01_f_2014_271				
Action/Comments					
Control annual grass and weeds on the levee slopes and easements.					

Photo 1 of 1 : FA_2014_ST0012_295_271_20141114_00401.jpg



Levee mile 4.06, vegetation on land side slope. Fall 2014.

LM Start	0.00	Rating **	A	Issue No.	272
LM End	5.09	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation			°	°
DWR ID	DWR_ST0012_01_f_2014_272				
Action/Comments					
Control annual grass and weeds on the levee slopes and easements.					

Photo 1 of 1 : FA_2014_ST0012_295_272_20141114_00402.jpg



Levee mile 4.06, vegetation on the water side slope. Fall 2014.

LM Start	0.02	Rating **	C	Issue No.	1
LM End	0.15	Issue Type +	En	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.590742	° 38.590716	
			-121.665767	° -121.668203	
DWR ID	DWR_ST0012_01_s_2012_1				
Action/Comments					
Landscaping Inspector Comments: This is the treatment plant's landscaping and chain link fence.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	Issue Type N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	11/13/2014 11/13/2014	Clay Thomas

LM Start	0.07	Rating **	C	Issue No.	10
LM End	0.21	Issue Type +	Ob	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Cracking		38.590724 °	38.590663 °	
			-121.666749 °	-121.669190 °	
DWR ID	DWR_ST0012_01_f_2012_10				
Action/Comments					
Monitor and have inspected by geotechnical engineer. Inspector Comments: The paved roadway is being sealed and worked on. The roadway continues to crack.					

No Photos

LM Start	4.32	Rating **	M	Issue No.	269
LM End	4.32	Issue Type +	En	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		38.598840 °	38.598840 °	
			-121.739600 °	-121.739600 °	
DWR ID	DWR_ST0012_01_f_2014_269				
Action/Comments					
Inspector Comments: FS_ID:29303 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: PG&E may provide further info FIELD_STRUCT_DESC: 8-inch gas main pipeline through both					

No Photos

LM Start	4.32	Rating **	M	Issue No.	4
LM End	4.63	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.598876 °	38.599845 °	
			-121.739640 °	-121.745007 °	
DWR ID	DWR_ST0012_01_s_2012_4				
Action/Comments					
Ditch					

Photo 1 of 1 : FA_2014_ST0012_295_4_20141014_00003.jpg



The agricultural ditch runs along the toe of the levee. Fall 2011

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**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2014 Levee Inspection Results

Sacramento Maintenance Yard Willow Slough Bypass

Waterway		Bank	Unit Miles	
Unit No. 02 Willow Slough Bypass or South Levee		Right	7.46	
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			A	
Date of Inspection	04/15/2014 - 04/15/2014		11/13/2014 - 11/13/2014	
DWR Inspector	John Williamson		Clay Thomas	
Accompanied By	Casey Lund Sacramento Maintenance Yard		Casey Lund Sacramento Maintenance Yard	

Summer & Winter Inspections

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	11/13/2014 11/13/2014	Clay Thomas

LM Start	0.00	Rating **	M	Issue No.	1
LM End	0.00	Issue Type +	En	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		38.599100 °	38.599100 °	
			-121.753260 °	-121.753260 °	
DWR ID	DWR_ST0012_02_f_2014_1				
Action/Comments					
Inspector Comments: FS_ID:13863 EP_NO: 15811 Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: Need to contact owner of pipe to place indicators on levee FIELD_STRUCT_DESC: Replace existing 4-inch diameter natural gas pipeline with an 8-inch diameter natural gas pipeline under the channel and within both banks of Willow Slough. Application No. 15811. FS Date: 5/24/2013					

No Photos

LM Start	0.03	Rating **	A	Issue No.	6
LM End	7.31	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.599117 °	38.574815 °	
			-121.752668 °	-121.640034 °	
DWR ID	DWR_ST0012_02_f_2014_6				
Action/Comments					
Control annual grass and weeds on the levee slopes and easements.					

Photo 1 of 1 : FA_2014_ST0012_296_6_20141114_00006.jpg



Levee mile 0.19, vegetation on the water side slope. Fall 2014.

LM Start	0.03	Rating **	A	Issue No.	4
LM End	7.31	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.599118 °	38.574815 °	
			-121.752738 °	-121.640034 °	
DWR ID	DWR_ST0012_02_f_2014_4				
Action/Comments					
Control annual grass and weeds on the levee slopes and easements.					

Photo 1 of 1 : FA_2014_ST0012_296_4_20141114_00007.jpg



Levee mile 0.19, vegetation on the land side slope. Fall 2014.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	11/13/2014 11/13/2014	Clay Thomas

LM Start	0.17	Rating **	M	Issue No.	160
LM End	0.17	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.599062 °	38.599062 °	
			-121.750156 °	-121.750156 °	
DWR ID	DWR_ST0012_02_f_2013_160				
Action/Comments					
Debris					

Photo 1 of 1 : FA_2014_ST0012_296_160_20141014_00004.jpg



There is some pipe and concrete debris on the levee slope. Fall 2013

LM Start	0.22	Rating **	M	Issue No.	7
LM End	0.48	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.598993 °	38.599047 °	
			-121.749130 °	-121.744366 °	
DWR ID	DWR_ST0012_02_s_2014_7				
Action/Comments					
Ditch					

Photo 1 of 1 : FA_2014_ST0012_296_7_20141014_00002.jpg



Agricultural ditch run along landside toe. Spring 2014

LM Start	1.71	Rating **	M	Issue No.	8
LM End	1.71	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		38.589966 °	38.589966 °	
			-121.727072 °	-121.727072 °	
DWR ID	DWR_ST0012_02_s_2012_8				
Action/Comments					
Note and monitor erosion site.					

Photo 1 of 1 : FA_2014_ST0012_296_8_20141014_00003.jpg



Erosion on the edge of the channel. Fall 2012

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	11/13/2014 11/13/2014	Clay Thomas

LM Start	1.97	Rating **	M	Issue No.	5
LM End	1.97	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		38.589906 °	38.589906 °	
			-121.722218 °	-121.722218 °	
DWR ID	DWR_ST0012_02_s_ 2012_5				
Action/Comments					
Note and monitor erosion site.					

Photo 1 of 1 : FA_2014_ST0012_296_5_20141014_00001.jpg



Erosion on the edge of the channel. Fall 2012.

LM Start	2.75	Rating **	M	Issue No.	10
LM End	2.75	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		38.589691 °	38.589691 °	
			-121.707740 °	-121.707740 °	
DWR ID	DWR_ST0012_02_f_ 2014_10				
Action/Comments					
Note and monitor erosion site.					

Photo 1 of 1 : FA_2014_ST0012_296_10_20141114_00008.jpg



Levee mile 2.75, erosion on toe road. Fall 2014.

LM Start	2.90	Rating **	M	Issue No.	9
LM End	2.90	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		38.589686 °	38.589686 °	
			-121.705041 °	-121.705041 °	
DWR ID	DWR_ST0012_02_f_ 2014_9				
Action/Comments					
Note and monitor erosion site.					

Photo 1 of 1 : FA_2014_ST0012_296_9_20141114_00009.jpg



Levee mile 2.90, erosion on toe road. Fall 2014.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2014

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	11/13/2014 11/13/2014	Clay Thomas

LM Start	4.22	Rating **	M	Issue No.	11
LM End	4.22	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		38.589550 °	38.589550 °	
			-121.680632 °	-121.680632 °	
DWR ID	DWR_ST0012_02_f_2014_11				
Action/Comments					
Note and monitor erosion site.					

No Photos

LM Start	4.23	Rating **	M	Issue No.	2
LM End	4.23	Issue Type +	En	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		38.589530 °	38.589530 °	
			-121.680560 °	-121.680560 °	
DWR ID	DWR_ST0012_02_f_2014_2				
Action/Comments					
Inspector Comments: FS_ID:13876 EP_NO: 10334 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Rodent activities on headwall is far from the levee. Inlet is across city of davis drainage ditch. Inlet was cleaned last fall. see picture FIELD_STRUCT_DESC: 24-inch CM pipe through the levee, 13.5 feet below the crown. Flap gate on the waterward end. (A.B.O. No. 10334 - Rhinehart). O&M manual 120, revision Dec 2010. FS Date: 5/24/2013					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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