

**Flood Control Project Maintenance
Levee Inspections**

Fall 2013 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

LD0001S Levee District No. 0001 (Sutter County)	Overall LMA Rating	Total LMA Miles						
	A	16.65						
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>								
Vegetation	1.41		1.41	8.47%	0.01			
Encroachments					0.64			
<i>Interior Drainage & Piping Systems</i>								
Metal Pipes	0.01		0.01	0.06%				
<i>Supplemental</i>								
DWR UCIP Field Study					0.09			
LMA Totals:	1.42	0.00	1.42	8.53%	0.74	0.00	0.00	0.00

**Flood Control Project Maintenance
Levee Inspections
LMA District Cover Sheet
Fall 2013 Levee Inspection Results**

Levee District No. 0001 (Sutter County)

	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 2013 Levee Inspection Results

Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles
Unit No. 01 Feather River	Right	16.65

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			A	
Date of Inspection	04/22/2013 - 04/22/2013		10/01/2013 - 10/01/2013	
DWR Inspector	Rick Burnett		Matthew Hoffman	
Accompanied By	Bill Hampton LD 1 Sutter		Bill Hampton LD 1 Sutter	

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 2013

Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	16.65	10/01/2013 10/01/2013	Matthew Hoffman

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	
1			Earthen Levee	Operations & Maintenance Manuals	WS	A Ma				4
								DWR ID: DWR_LD0001S_01_s_2013_4		
2			Earthen Levee	Emergency Supplies & Equipment	WS	A Ma				5
								DWR ID: DWR_LD0001S_01_s_2013_5		
3			Earthen Levee	Flood Preparedness & Training	WS	A Ma				6
								DWR ID: DWR_LD0001S_01_s_2013_6		
4	0.33	0.33	Earthen Levee	Encroachments	LS	M En	PO : Pole	38.955946 ° -121.585517 °	38.955946 ° -121.585517 °	8
								DWR ID: DWR_LD0001S_01_f_2012_8		
5	0.82	0.82	Earthen Levee	Encroachments	LS	C En	DE : Debris	38.963081 ° -121.586217 °	38.963081 ° -121.586217 °	9
								DWR ID: DWR_LD0001S_01_f_2012_9		
6	0.94	1.02	Earthen Levee	Encroachments	LS	A En	AT : Agricultural tilling Inspector Comments: Occuring at the levee toe.	38.964768 ° -121.586681 °	38.965668 ° -121.587392 °	10
								DWR ID: DWR_LD0001S_01_f_2012_10		
7	1.19	1.19	Earthen Levee	Encroachments	LS	M En	DE : Debris	38.968022 ° -121.587509 °	38.968022 ° -121.587509 °	7
								DWR ID: DWR_LD0001S_01_s_2012_7		
8	1.59	1.59	Earthen Levee	Vegetation	WS	M Ma	V2 : Remove the wild growth other than native grasses from the levee slopes.	38.973515 ° -121.589765 °	38.973515 ° -121.589765 °	18 Y
								DWR ID: DWR_LD0001S_01_f_2013_18		
9	1.84	1.84	Interior Drainage & Piping Systems	Metal Pipes	LS	M Ma	Inspector Comments: Abandoned pipe. This pipe is listed in our levee log as an abandoned pipe, no date listed. No permit number. Corp pipe.	38.976927 ° -121.591210 °	38.976927 ° -121.591210 °	487 Y
								DWR ID: DWR_LD0001S_01_s_2012_487		
10	2.20	2.20	Supplemental	DWR UCIP Field Study	LS	M En	Inspector Comments: FS_ID:11383 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Siphon breaker cap missing. Sump pump and gate valve at landward toe not found may be due to dense vegetation. FIELD_STRUCT_DESC: A 8-inch steel pipe through levee, 4.6-feet below the crown. Siphon breaker in corrugated metal riser on landward slope.O&M Manual Sac 144, August 1955, Revision Year 2011. FS Date: 4/12/2013	38.982135 ° 38.982135 °	-121.591974 ° -121.591974 °	1 Y
								DWR ID: DWR_LD0001S_01_f_2013_1		
11	3.22	3.22	Earthen Levee	Vegetation	WSA/W	Ma	V2 : Remove the wild growth other than native grasses from the levee slopes.	38.996261 ° -121.595939 °	38.996261 ° -121.595939 °	19 Y
								DWR ID: DWR_LD0001S_01_f_2013_19		

* Location LS : Land Side 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 2013

Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	16.65	10/01/2013 10/01/2013	Matthew Hoffman

LMIR No.	Levee Mile		Category	Item	* Location	** Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	
12	4.58	4.58	Supplemental	DWR UCIP Field Study	CR	M En	Inspector Comments: FS_ID:11505 EP_NO: 18438 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Needs removal of blockage by riprap rubbles. FIELD_STRUCT_DESC: 1 of 2. 2- 16-inch steel drainage pipe. Riprap discharge structure on WS. Flap gate not properly closed. Pump station on LS concrete sump. FS Date: 4/8/2013	39.011340 °	-121.603474 °	2 Y
								DWR ID: DWR_LD0001S_01_f_2013_2		
13	4.58	4.58	Supplemental	DWR UCIP Field Study	CR	M En	Inspector Comments: FS_ID:11844 EP_NO: 18438 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: FIELD_STRUCT_DESC: 2 of 2. 2- 16-inch steel drainage pipe. Riprap discharge structure on WS. Flap gate not properly closed. Pump station on LS concrete sump. FS Date: 4/8/2013	39.011354 °	-121.603488 °	11
								DWR ID: DWR_LD0001S_01_f_2013_11		
14	4.58	4.58	Supplemental	DWR UCIP Field Study	CR	M En	Inspector Comments: FS_ID:11843 EP_NO: 18438 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Needs removal of rubbles from flap gate area. FIELD_STRUCT_DESC: 2 of 2. 2- 16-inch steel drainage pipe. Riprap discharge structure on WS. Flap gate not properly closed. Pump station on LS concrete sump. FS Date: 4/8/2013	39.011354 °	-121.603488 °	12
								DWR ID: DWR_LD0001S_01_f_2013_12		
15	9.35	9.35	Earthen Levee	Vegetation	LS	M En	V6 : Landscaping	39.076558 °	39.076558 °	489
								-121.605837 ° -121.605837 °		
								DWR ID: DWR_LD0001S_01_s_2012_489		
16	10.00	11.00	Earthen Levee	Encroachments	CR A/W	M En	MA : Material Inspector Comments: Under construction as part of the SBFCA project.	°	°	20
								° °		
								DWR ID: DWR_LD0001S_01_f_2013_20		
17	11.89	11.89	Supplemental	DWR UCIP Field Study	CR	M En	Inspector Comments: FS_ID:12004 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: No flap gates on waterward end. Road pavement cracked along pipe, it needs more investigation. FIELD_STRUCT_DESC: 1 of 2. A 6-inch pipe (of 6-inch and 16-inch-pipes) through levee, 6.0 feet below crown. Siphon breakers in corrugated metal pipe risers on waterward shoulder. Pump house at landward toe. FS Date: 4/9/2013	39.106261 °	-121.607535 °	13 Y
								39.106261 ° -121.607535 °		
								DWR ID: DWR_LD0001S_01_f_2013_13		

* Location LS : Land Side 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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Levee Inspection Report By Mile - Fall 2013

Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	16.65	10/01/2013 10/01/2013	Matthew Hoffman

LMIR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo	
	Start	End						Start	End		
18	11.89	11.89	Supplemental	DWR UCIP Field Study	LS	M En	Inspector Comments: FS_ID:12003 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: No flap gates on waterward end. Road pavement cracked along pipe, it needs more investigation. FIELD_STRUCT_DESC: 1 of 2. A 6-inch pipe (of 6-inch and 16-inch-pipes) through levee, 6.0 feet below crown. Siphon breakers in corrugated metal pipe risers on waterward shoulder. Pump house at landward toe. FS Date: 4/9/2013	39.106261 °	-121.607535 °	14	
DWR ID: DWR_LD0001S_01_f_2013_14											
19	11.89	11.89	Supplemental	DWR UCIP Field Study	LS	M En	Inspector Comments: FS_ID:11983 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Road pavement cracked along pipe line, needs more investigation. FIELD_STRUCT_DESC: 2 of 2. A 16-inch pipe (of 6-inch and 16-inch-pipes) through levee, 6.0 feet below crown. Flap gates on waterward end. Siphon breakers in corrugated metal pipe risers on waterward shoulder. Pump house at landward toe. FS Date: 4/9/2013	39.106261 °	-121.607535 °	15	
DWR ID: DWR_LD0001S_01_f_2013_15											
20	13.64	14.26	Earthen Levee	Encroachments	LS	M En	BU : Building	39.130197 °	39.138262 °	3	
									-121.602453 °	-121.607007 °	
DWR ID: DWR_LD0001S_01_s_2012_3											
21	13.65	14.04	Earthen Levee	Vegetation	WS	M Ma	V2 : Remove the wild growth other than native grasses from the levee slopes. Inspector Comments: Due to fires in the valley the district was unable to burn this section. District stated that they will drag the area to control vegetation.	39.130209 °	39.135551 °	21	
									-121.602451 °	-121.604932 °	Y
DWR ID: DWR_LD0001S_01_f_2013_21											
22	13.65	14.04	Earthen Levee	Vegetation	LS	M Ma	V2 : Remove the wild growth other than native grasses from the levee slopes. Inspector Comments: Due to fires in the valley the district was unable to burn this section. District stated that they will drag the area to control vegetation.	39.130209 °	39.135551 °	22	
									-121.602451 °	-121.604932 °	Y
DWR ID: DWR_LD0001S_01_f_2013_22											
23	15.56	15.56	Supplemental	DWR UCIP Field Study	LS	M En	Inspector Comments: FS_ID:12092 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Only a gasoline indicator found on LS.Needs gasoline marker also on WS. FIELD_STRUCT_DESC: A 16-inch gas line through levee, 3.5 feet below the crown. FS Date: 4/5/2013	39.154970 °	-121.615617 °	16	
									39.154970 °	-121.615617 °	Y
DWR ID: DWR_LD0001S_01_f_2013_16											

* Location LS : Land Side 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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Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	16.65	10/01/2013 10/01/2013	Matthew Hoffman

LMR No.	Levee Mile		Category	Item	* Location	** Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	
24	15.66	15.97	Earthen Levee	Vegetation	LS	M Ma	V2 : Remove the wild growth other than native grasses from the levee slopes. Inspector Comments: Vegetation from the crown down the slope approx. 15'. DWR ID: DWR_LD0001S_01_f_2013_23	39.156036 ° -121.616960 °	39.159377 ° -121.620682 °	23
25	15.66	15.97	Earthen Levee	Vegetation	WS	M Ma	V2 : Remove the wild growth other than native grasses from the levee slopes. Inspector Comments: Vegetation from the crown down the slope approx. 15'. DWR ID: DWR_LD0001S_01_f_2013_24	39.156036 ° -121.616960 °	39.159377 ° -121.620682 °	24 Y
26	15.68	15.68	Supplemental	DWR UCIP Field Study	WS	M En	Inspector Comments: FS_ID:12104 EP_NO: 17259 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Found an indicator only on LS. Needs an indicator also on WS. FIELD_STRUCT_DESC: An 8-3/8-inch-wide Electrolysis Test Station (ETS) at a depth of 4 feet and connect it to the existing 8-inch metal gas line within the waterside levee toe of the right (west) bank of the Feather River. FS Date: 4/5/2013 DWR ID: DWR_LD0001S_01_f_2013_17	39.156241 ° 39.156241 °	-121.617210 ° -121.617210 °	17 Y

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	16.65	10/01/2013 10/01/2013	Matthew Hoffman

Levee Mile Report Line	8
Start Levee Mile	1.59
End Levee Mile	1.59
Location	Water Side
Category	Earthen Levee
Item	Vegetation
<p>Photo taken from levee crown looking east at vegetation on the waterward slope.</p>	
<p>mhoffman_f_20131002_639.JPG</p>	



Levee Mile Report Line	9
Start Levee Mile	1.84
End Levee Mile	1.84
Location	Land Side
Category	Interior Drainage & Piping Systems
Item	Metal Pipes
<p>This photo shows the abandoned pipe on the waterside berm, note the piece of wood stuck in the pipe.</p>	
<p>mhoffman_f_20130917_001.jpg</p>	



Levee Mile Report Line	10
Start Levee Mile	2.20
End Levee Mile	2.20
Location	Land Side
Category	Supplemental
Item	DWR UCIP Field Study
<p>LS- overview of levee slope with dense vegetation and drainage ditch in background</p>	
<p>UCIP_6292.jpg</p>	



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

Levee Inspection Report By Mile - Fall 2013

Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	16.65	10/01/2013 10/01/2013	Matthew Hoffman

Levee Mile Report Line	11
Start Levee Mile	3.22
End Levee Mile	3.22
Location	Water Side
Category	Earthen Levee
Item	Vegetation
Photo taken from levee crown looking north at vegetation on the waterward slope.	
mhoffman_f_20131002_640.JPG	



Levee Mile Report Line	12
Start Levee Mile	4.58
End Levee Mile	4.58
Location	Water Side
Category	Supplemental
Item	DWR UCIP Field Study
LS- two pumps in concrete sump.	
UCIP_6306.jpg	



Levee Mile Report Line	17
Start Levee Mile	11.89
End Levee Mile	11.89
Location	Water Side
Category	Supplemental
Item	DWR UCIP Field Study
LS- pipes and pump house on concrete base.	
UCIP_6412.jpg	



* Location LS : Land Side 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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Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	16.65	10/01/2013 10/01/2013	Matthew Hoffman

Levee Mile Report Line	21
Start Levee Mile	13.65
End Levee Mile	14.04
Location	Water Side
Category	Earthen Levee
Item	Vegetation
Photo taken from levee crown looking north at vegetation on the waterward slope.	
mhoffman_f_20131002_641.JPG	



Levee Mile Report Line	22
Start Levee Mile	13.65
End Levee Mile	14.04
Location	Land Side
Category	Earthen Levee
Item	Vegetation
Photo taken from levee crown looking north at vegetation on the landward slope.	
mhoffman_f_20131002_642.JPG	



Levee Mile Report Line	23
Start Levee Mile	15.56
End Levee Mile	15.56
Location	Land Side
Category	Supplemental
Item	DWR UCIP Field Study
LS- gasoline marker on levee slope	
UCIP_6422.jpg	



* Location LS : Land Side 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 2013

Levee District No. 0001 (Sutter County)

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	16.65	10/01/2013 10/01/2013	Matthew Hoffman

Levee Mile Report Line	25
Start Levee Mile	15.66
End Levee Mile	15.97
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Photo taken from levee crown looking north at vegetation on the waterward slope.

mhoffman_f_20131002_643.JPG



Levee Mile Report Line	26
Start Levee Mile	15.68
End Levee Mile	15.68
Location	Water Side
Category	Supplemental
Item	DWR UCIP Field Study

LS- gasoline indicators on levee slope and across.

UCIP_6425.jpg



* Location LS : Land Side 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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