

**Flood Control Project Maintenance
Levee Inspections**

Fall 2014 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

MA0003 Sutter Maintenance Yard Maintenance Area 0003	Overall LMA Rating	Total LMA Miles	* Overall LMA Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall LMA Rating is M instead of A.					
	M *	5.11						
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	0.01		0.01	0.20%				
Encroachments						0.01		
Crown Surface / Depressions / Rutting		0.01	0.04	0.78%				
<i>Interior Drainage & Piping Systems</i>								
Stuice / Slide Gates	0.01		0.01	0.20%				
<i>Supplemental</i>								
USACE Erosion Survey	0.02		0.02	0.39%				
DWR UCIP Field Study					0.01	0.02		
<i>LMA Totals:</i>	0.04	0.01	0.08	1.57% *	0.01	0.03	0.00	0.00

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

Sutter Maintenance Yard Maintenance Area 0003

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

** 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

Sutter Maintenance Yard Maintenance Area 0003

Waterway		Bank	Unit Miles	
Unit No. 01 Feather River		Right	5.11	
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			M	
Date of Inspection	05/01/2014 - 05/01/2014		10/14/2014 - 10/14/2014	
DWR Inspector	Matthew Hoffman		Matthew Hoffman	
Accompanied By				

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
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Levee Inspection Report By Mile - Fall 2014

Sutter Maintenance Yard Maintenance Area 0003

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	10/14/2014 10/14/2014	Matthew Hoffman

LM Start		Rating **	A	Issue No.	4
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Operations & Maintenance Manuals			°	°
DWR ID	DWR_MA0003_01_s_2013_4				
Action/Comments					
Inspector Comments: Sutter Yard has a copy of the O&M manuals.					

No Photos

LM Start		Rating **	A	Issue No.	6
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Emergency Supplies & Equipment			°	°
DWR ID	DWR_MA0003_01_s_2013_6				
Action/Comments					
Inspector Comments: The Sutter Yard has adequate flood fight supplies and equipment.					

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	Flood Preparedness & Training			°	°
DWR ID	DWR_MA0003_01_s_2013_7				
Action/Comments					
Inspector Comments: The Sutter Yard has received flood fight 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

Sutter Maintenance Yard Maintenance Area 0003

Waterway		Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River		Right	5.11	10/14/2014 10/14/2014	Matthew Hoffman

LM Start	0.78	Rating **	U	Issue No.	140
LM End	0.78	Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		38.903339 °	38.903339 °	
			-121.606209 °	-121.606209 °	
DWR ID	DWR_MA0003_01_f_2014_140				
Action/Comments					
Repair depressions or ruts in the crown or slope. Inspector Comments: There is a sinkhole on the landward toe road approximately 12" in diameter leading to the adjacent drainage ditch.					

Photo 1 of 2 : FA_2014_MA0003_195_140_20141017_00249.jpg



This photo was taken from the landward levee slope near the toe road facing north looking at an approximately 12" sink hole going from the toe road to the adjacent drainage ditch that parallels the toe road. Fall 2014.

LM Start	0.78	Rating **	U	Issue No.	140 (cont)
LM End	0.78	Issue Type +	Ma	Location *	N/A

Photo 2 of 2 : FA_2014_MA0003_195_140_20141017_00250.jpg



This is another photo of the sink hole to show its relationship to to levee toe, toe road, and drainage ditch. 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

Sutter Maintenance Yard Maintenance Area 0003

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	10/14/2014 10/14/2014	Matthew Hoffman

LM Start	0.80	Rating **	M	Issue No.	5
LM End	0.80	Issue Type +	Ma	Location *	LS
Category	Interior Drainage & Piping Systems		GPS Latitude/Longitude		
			Start	End	
Item	Sluice / Slide Gates		38.903291 °	38.903291 °	
			-121.605747 °	-121.605747 °	
DWR ID	DWR_MA0003_01_s_2012_5				
Action/Comments					
Inspector Comments: This pipe leaked during the high water event of 2010/2011.					

Photo 1 of 1 : FA_2014_MA0003_195_5_20141013_00001.jpg



Levee mile 0.80, this photo is looking at the landside toe, one of these pipes leaked during the high water event of 2010/2011. A flap gate prevents flow from the waterward side to the landward side of the levee.

LM Start	0.80	Rating **	U	Issue No.	137
LM End	0.80	Issue Type +	En	Location *	LS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		38.903264 °	38.903264 °	
			-121.605698 °	-121.605698 °	
DWR ID	DWR_MA0003_01_f_2014_137				
Action/Comments					
Inspector Comments: FS_ID:35886 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall 5/21/2013 SBFCA project recommends replacing in accordance with title 23/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop 10/30/2013 Same as last inspection 5/14/2014 Same as last inspection. FIELD_STRUCT_DESC: 2 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 5/14/2014 2:50:27 PM					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable 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
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Levee Inspection Report By Mile - Fall 2014

Sutter Maintenance Yard Maintenance Area 0003

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	10/14/2014 10/14/2014	Matthew Hoffman

LM Start	0.80	Rating **	U	Issue No.	138
LM End	0.80	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID	DWR_MA0003_01_f_2014_138				
Action/Comments					
Inspector Comments: FS_ID:35884 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. 5/21/2013 SBFCA project recommends replacing in accordance with title 23/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. FIELD_STRUCT_DESC: 1 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" shaped headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 5/14/2014 2:47:03 PM					

No Photos

LM Start	1.82	Rating **	C	Issue No.	20
LM End	1.82	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.907469 °	38.907469 °
				-121.589717 °	-121.589717 °
DWR ID	DWR_MA0003_01_f_2013_20				
Action/Comments					
Tree or limb					

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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Sutter Maintenance Yard Maintenance Area 0003

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	10/14/2014 10/14/2014	Matthew Hoffman

LM Start	3.64	Rating **	M	Issue No.	19
LM End	3.64	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.930063 °	38.930063 °	
			-121.590211 °	-121.590211 °	
DWR ID	DWR_MA0003_01_f_2013_19				
Action/Comments					
Elderberries are blocking visibility and flood fight capability. Inspector Comments: Elderberries on the landward levee toe.					

Photo 1 of 1 : FA_2014_MA0003_195_19_20141013_00007.jpg



This photo was taken from the levee crown facing south looking down the landward levee slope at a group of Elderberries. Fall 2013.

LM Start	4.20	Rating **	M	Issue No.	10
LM End	4.20	Issue Type +	Ma	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	USACE Erosion Survey		38.937454 °	38.937937 °	
			-121.588544 °	-121.588471 °	
DWR ID	DWR_MA0003_01_f_2014_10				
Action/Comments					
Inspector Comments: 2013: Minor toe scour causing gradual erosion of bank slope. Site is within ecological reserve. [2013 Site ID: FHR_12-3_R]					

Photo 1 of 2 : FA_2014_MA0003_195_10_20141013_00002.jpg



USACE 2013 Photo #1

LM Start	4.20	Rating **	M	Issue No.	10 (cont)
LM End	4.20	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : FA_2014_MA0003_195_10_20141013_00003.jpg



USACE 2013 Photo #2

* 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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Levee Inspection Report By Mile - Fall 2014

Sutter Maintenance Yard Maintenance Area 0003

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	10/14/2014 10/14/2014	Matthew Hoffman

LM Start	4.67	Rating **	M	Issue No.	11
LM End	4.67	Issue Type +	Ma	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	USACE Erosion Survey		38.945190 °	38.945967 °	
			-121.586073 °	-121.586328 °	
DWR ID	DWR_MA0003_01_f_2014_11				
Action/Comments					
Inspector Comments: 2013: Minor toe scour causing gradual erosion into the bank slope [2013 Site ID: FHR_12-8_R]					

Photo 1 of 2 : FA_2014_MA0003_195_11_20141013_00004.jpg



USACE 2013 Photo #1

LM Start	4.67	Rating **	M	Issue No.	11 (cont)
LM End	4.67	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : FA_2014_MA0003_195_11_20141013_00005.jpg



USACE 2013 Photo #2

* 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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