

**Flood Control Project Maintenance
Levee Inspections**

Fall 2010 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

MA0013 Sutter Maintenance Yard Maintenance Area 0013	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 *	41.97				
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	Encroachments PO Miles CO Miles	
Trim / Thin Trees	0.03		0.03	0.07%		
Encroachments	0.16		0.16	0.38%	0.01	
Animal Control	0.01		0.01	0.02%		
Erosion / Bank Caving	0.37	0.06	0.61	1.45%		
USACE Erosion Survey	0.39		0.39	0.93%		
<i>LMA Totals:</i>	0.96	0.06	1.20	2.86% *	0.01	0.00

Unit No. 01 Cherokee Canal	Overall Unit Rating	Total Unit Miles				
	A	18.87				
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	Encroachments PO Miles CO Miles	
Trim / Thin Trees	0.03		0.03	0.16%		
Encroachments	0.04		0.04	0.21%		
<i>Unit Totals:</i>	0.07	0.00	0.07	0.37%	0.00	0.00

Unit No. 02 Cherokee Canal	Overall Unit Rating	Total Unit Miles	* Overall Unit Threshold Percent is less than 10.00%; however, U Rated Miles are present, so the Overall Unit Rating is M instead of A.			
	M *	23.10				
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	Encroachments PO Miles CO Miles	
Encroachments	0.12		0.12	0.52%	0.01	
Animal Control	0.01		0.01	0.04%		
Erosion / Bank Caving	0.37	0.06	0.61	2.64%		
USACE Erosion Survey	0.39		0.39	1.69%		
<i>Unit Totals:</i>	0.89	0.06	1.13	4.89% *	0.01	0.00

**Flood Control Project Maintenance
Levee Inspections
LMA District Cover Sheet
Fall 2010 Levee Inspection Results**

Sutter Maintenance Yard Maintenance Area 0013

	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.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2010 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0013

Waterway	Bank	Unit Miles
Unit No. 01 Cherokee Canal	Right	18.87

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			A	
Date of Inspection	3/22/2010		9/21/2010	
DWR Inspector	Bob Duffey		Bob Duffey	
Accompanied By	Jason Cooper Sutter Yard		Jason Cooper Sutter Yard	

Check one:

- During the current winter (or summer) inspection period, my staff or I have inspected the levee and associated flood project components identified in the attached Levee Inspection Report by Mile. We have found no changes in flood project conditions other than the results of our normal maintenance and the corrections we have made to maintenance deficiencies identified in the enclosed report.
- During the current winter (or summer) inspection period, my staff or I have inspected the levee and associated flood project components identified in the attached Levee Inspection Report by Mile. In addition to the results of our normal maintenance and the corrections we have made to maintenance deficiencies identified in the report, we have found the following changes in flood project conditions.

(In the comment section below or on additional sheet(s), identify change of condition by: Start to End Levee Mile or GPS coordinates, location (Land Side, Water Side, or Crown), Item identification, and description of the current condition).

Comments

One of the boxes above is to be checked by the Local Maintaining Agency (LMA). If the second box is checked, additional information must also be submitted. This Unit Cover Sheet should be signed and dated by the LMA Representative and returned to DWR with any additional sheets by September 30 (Summer Inspection) or March 31 (Winter Inspection). Please retain a copy for your records. Please mail all of this information to :
 DWR Summer/Winter Inspection Reports
 3310 El Camino Avenue, Room LL-30
 Sacramento, CA 95821-9000

X

Signature of LMA Representative

Date

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Sutter Maintenance Yard Maintenance Area 0013

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cherokee Canal	Right	18.87	11/15/2010 11/15/2010	Bob Duffey

LMR No.	Levee Mile		Category	Item	* Location	** Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	
1	0.76	0.78	Earthen Levee	Encroachments	LS	M	Equipment	39.587905 ° -121.700822 °	39.587505 ° -121.700880 °	12 Y
2	1.68	1.68	Earthen Levee	Encroachments	LS	M	Prunings	39.576092 ° -121.702808 °	39.576092 ° -121.702808 °	1
3	6.63	6.63	Earthen Levee	Encroachments	LS	M	Material	39.507337 ° -121.715693 °	39.507337 ° -121.715693 °	2 Y
4	9.84	9.87	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	39.467170 ° -121.743887 °	39.466860 ° -121.744108 °	5 Y
5	9.85	9.86	Earthen Levee	Encroachments	LS	C	Garbage	39.467077 ° -121.743883 °	39.466857 ° -121.743913 °	7

<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>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p> <p>C : Corrected W : Watch/Monitor</p>
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Sutter Maintenance Yard Maintenance Area 0013

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Cherokee Canal	Right	18.87	11/15/2010 11/15/2010	Bob Duffey

Levee Mile Report Line	1
Start Levee Mile	0.76
End Levee Mile	0.78
Location	Land Side
Category	Earthen Levee
Item	Encroachments

View of the equipment along the landside toe of the levee.

rduffey_f_20101123_325.jpg



Levee Mile Report Line	3
Start Levee Mile	6.63
End Levee Mile	6.63
Location	Land Side
Category	Earthen Levee
Item	Encroachments

View of a concrete block along the toe.

rduffey_f_20101123_326.jpg



Levee Mile Report Line	4
Start Levee Mile	9.84
End Levee Mile	9.87
Location	Land Side
Category	Earthen Levee
Item	Trim / Thin Trees

View of trees that need to be trimmed along the toe.

rduffey_f_20101123_327.jpg



<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>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p>	<p>C : Corrected W : Watch/Monitor</p>
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**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2010 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0013

Waterway	Bank	Unit Miles
Unit No. 02 Cherokee Canal	Left	23.10

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			M	
Date of Inspection	3/22/2010		9/21/2010	
DWR Inspector	Bob Duffey		Bob Duffey	
Accompanied By	Jason Cooper Sutter Yard		Jason Cooper Sutter Yard	

Check one:

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(In the comment section below or on additional sheet(s), identify change of condition by: Start to End Levee Mile or GPS coordinates, location (Land Side, Water Side, or Crown), Item identification, and description of the current condition).

Comments

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DWR Summer/Winter Inspection Reports
3310 El Camino Avenue, Room LL-30
Sacramento, CA 95821-9000

X

Signature of LMA Representative

Date

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Sutter Maintenance Yard Maintenance Area 0013

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cherokee Canal	Left	23.10	11/16/2010 11/16/2010	Bob Duffey

LMR No.	Levee Mile		Category	Item	* Location	** Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	
1	0.05	0.15	Earthen Levee	Encroachments	WS	M	Equipment	39.573523 ° -121.701387 °	39.572455 ° -121.702370 °	1
2	0.58	0.58	Earthen Levee	Erosion / Bank Caving	LS	M	Schedule repair of erosion site prior to the next inspection.	39.566448 ° -121.702428 °	39.566448 ° -121.702428 °	15 Y
3	1.83	1.83	Earthen Levee	Erosion / Bank Caving	WS	C	Schedule repair of erosion site prior to the next inspection.	39.549450 ° -121.706063 °	39.549450 ° -121.706063 °	7
4	3.81	5.67	Earthen Levee	Erosion / Bank Caving	LS	C	Note and monitor erosion site.	39.523507 ° -121.700693 °	39.524392 ° -121.698292 °	8
5	5.14	5.14	Earthen Levee	Encroachments	WS	M	Garbage	39.526858 ° -121.689360 °	39.526858 ° -121.689360 °	911
6	5.15	5.15	Earthen Levee	Encroachments	WS	M	Garbage	39.526938 ° -121.689597 °	39.526938 ° -121.689597 °	9
7	5.33	5.37	Earthen Levee	Erosion / Bank Caving	LS	C	Note and monitor erosion site.	39.526077 ° -121.692668 °	39.525747 ° -121.693152 °	10
8	5.48	5.53	Earthen Levee	Erosion / Bank Caving	LS	C	Note and monitor erosion site.	39.524828 ° -121.694823 °	39.524440 ° -121.695655 °	13
9	14.02	14.05	Supplemental	USACE Erosion Survey	WS	M	Inspector Comments: 2009: no berm, 2.5:1 slope, holes , clays and silts, 4 ft/s [2009 SiteID:CKC_14_0_L]	39.422281 ° -121.772394 °	39.421839 ° -121.772706 °	5
10	15.28	15.28	Earthen Levee	Animal Control	WS	M	No rodents visible, but rodent burrows visible; need to backfill and compact or grout borrows.	39.409567 ° -121.789558 °	39.409567 ° -121.789558 °	16 Y
11	21.71	22.07	Supplemental	USACE Erosion Survey	WS	M	Inspector Comments: 2009: no berm, 2.5:1 slope, no stability issues, clays and silts, 6 ft/s [2009 SiteID:CKC_21-9_L]	39.365281 ° -121.861686 °	39.362497 ° -121.867275 °	14
12	21.72	22.08	Earthen Levee	Erosion / Bank Caving	WS	M	Schedule repair of erosion site prior to the next inspection.	39.365167 ° -121.861810 °	39.362378 ° -121.867338 °	17 Y
13	22.38	22.38	Earthen Levee	Encroachments	LS	PO	Landscaping	39.359982 ° -121.871958 °	39.359982 ° -121.871958 °	4 Y
14	22.69	22.69	Earthen Levee	Erosion / Bank Caving	LS	U	Schedule repair of erosion site prior to the next inspection.	39.357348 ° -121.876848 °	39.357348 ° -121.876848 °	3 Y
15	22.75	22.79	Earthen Levee	Erosion / Bank Caving	LS	U	Schedule repair of erosion site prior to the next inspection.	39.357180 ° -121.877755 °	39.356848 ° -121.878467 °	6 Y
16	22.83	22.83	Earthen Levee	Erosion / Bank Caving	LS	U	Schedule repair of erosion site prior to the next inspection.	39.356457 ° -121.879178 °	39.356457 ° -121.879178 °	2 Y

* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated C : Corrected W : Watch/Monitor
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**Flood Control Project Maintenance
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Levee Inspection Report By Mile - Fall 2010

Sutter Maintenance Yard Maintenance Area 0013

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cherokee Canal	Left	23.10	11/16/2010 11/16/2010	Bob Duffey

Levee Mile Report Line	2
Start Levee Mile	0.58
End Levee Mile	0.58
Location	Land Side
Category	Earthen Levee
Item	Erosion / Bank Caving

View of erosion along the levee toe.

rduffey_f_20101123_317.jpg



Levee Mile Report Line	10
Start Levee Mile	15.28
End Levee Mile	15.28
Location	Water Side
Category	Earthen Levee
Item	Animal Control

View of a squirrel hole along the slope.

rduffey_f_20101123_319.jpg



Levee Mile Report Line	12
Start Levee Mile	21.72
End Levee Mile	22.08
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

View of erosion along the toe.

rduffey_f_20101123_320.jpg



<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>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p>	<p>C : Corrected W : Watch/Monitor</p>
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Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Sutter Maintenance Yard Maintenance Area 0013

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cherokee Canal	Left	23.10	11/16/2010 11/16/2010	Bob Duffey

Levee Mile Report Line	13
Start Levee Mile	22.38
End Levee Mile	22.38
Location	Land Side
Category	Earthen Levee
Item	Encroachments
View of landscape along the toe.	
rduffey_f_20101123_321.jpg	



Levee Mile Report Line	14
Start Levee Mile	22.69
End Levee Mile	22.69
Location	Land Side
Category	Earthen Levee
Item	Erosion / Bank Caving
View of the erosion along the landside slope.	
rduffey_f_20101123_322.jpg	



Levee Mile Report Line	15
Start Levee Mile	22.75
End Levee Mile	22.79
Location	Land Side
Category	Earthen Levee
Item	Erosion / Bank Caving
View of the erosion along the landside slope cause by a telephone company underground line.	
rduffey_f_20101123_323.jpg	



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Levee Inspection Report By Mile - Fall 2010

Sutter Maintenance Yard Maintenance Area 0013

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cherokee Canal	Left	23.10	11/16/2010 11/16/2010	Bob Duffey

Levee Mile Report Line	16
Start Levee Mile	22.83
End Levee Mile	22.83
Location	Land Side
Category	Earthen Levee
Item	Erosion / Bank Caving

View of the erosion on the landside slope of the levee.

rduffey_f_20101123_324.jpg



<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>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p>	<p>C : Corrected W : Watch/Monitor</p>
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