

**Flood Control Project Maintenance
Levee Inspections**

Fall 2010 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including DWR Erosion Survey

San Joaquin River Basin

RD0524	Overall LMA Rating	Total LMA Miles				
Reclamation District No. 0524 Middle Roberts Island	U	6.26				
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	Encroachments	
					PO Miles	CO Miles
<i>Earthen Levee</i>						
Vegetation	0.22	0.10	0.62	9.90%		
Trim / Thin Trees	0.78	0.01	0.82	13.10%		
Encroachments	0.25	0.01	0.29	4.63%	0.09	0.24
Animal Control	0.35		0.35	5.59%		
Slope Stability	0.12		0.12	1.92%		
Erosion / Bank Caving	0.23	0.02	0.31	4.95%		
Crown Surface / Depressions / Rutting	0.02		0.02	0.32%		
<i>Supplemental</i>						
DWR Erosion Survey	0.02	0.22	0.90	14.38%		
LMA Totals:	1.99	0.36	3.43	54.79%	0.09	0.24

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

Reclamation District No. 0524 Middle Roberts Island

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

** 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

Reclamation District No. 0524 Middle Roberts Island

Waterway			Bank	Unit Miles
Unit No. 01 San Joaquin River			Left	6.26

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			U	
Date of Inspection	3/16/2010		9/21/2010	
DWR Inspector	Richard Willoughby		Richard Willoughby	
Accompanied By	Mario Jaques RD 524		Mario Jaques RD 524	

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, Suite 200
Sacramento, CA 95821-9000

X

Signature of LMA Representative

Date

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway							Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River							Left	6.26	09/27/2010 09/28/2010	Richard Willoughby
LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
1	0.20	0.20	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.939034 ° -121.343868 °	37.939034 ° -121.343868 °	29 Y
2	0.22	0.22	Earthen Levee	Crown Surface / Depressions / Rutting	CR	M	Regrade the crown roadway for proper drainage.	37.938890 ° -121.343657 °	37.938890 ° -121.343657 °	3 Y
3	0.36	0.36	Earthen Levee	Encroachments	LS	M	Garbage	37.938338 ° -121.341290 °	37.938338 ° -121.341290 °	15 Y
4	0.38	0.39	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.938527 ° -121.340887 °	37.938553 ° -121.340778 °	4 Y
5	0.39	0.43	Earthen Levee	Animal Control	WS	C	No rodents visible, but rodent burrows visible; need to backfill and compact or grout borrows.	37.938555 ° -121.340870 °	37.938642 ° -121.339990 °	5 Y
6	0.48	0.49	Earthen Levee	Erosion / Bank Caving	WS	U	Schedule repair of erosion site prior to the next inspection.	37.938693 ° -121.339063 °	37.938693 ° -121.338993 °	6 Y
7	0.51	0.52	Earthen Levee	Erosion / Bank Caving	WS	U	Schedule repair of erosion site prior to the next inspection.	37.938682 ° -121.338518 °	37.938657 ° -121.338425 °	7 Y
8	0.53	0.60	Supplemental	DWR Erosion Survey	WS	U	Inspector Comments: 09/07/2010: No significant changes observed on site. Some emergent vegetation at the lower and middle slope. Existing revetment is no longer adequately protecting the oversteepened slope. Some of the broken concrete used as revetment has slid, dragging levee materials away from the slope and creating notches. [2010 SiteID: RD0524U01RM41.15]	37.938895 ° -121.337602 °	37.938895 ° -121.337602 °	1 Y
9	0.63	0.63	Earthen Levee	Slope Stability	WS	M	Repair the levee slope damaged by foot traffic and prevent access where possible.	37.938247 ° -121.336503 °	37.938247 ° -121.336503 °	10 Y
10	0.63	0.64	Earthen Levee	Vegetation	WS	U	Remove the wild growth other than native grasses from the levee slopes.	37.938247 ° -121.336503 °	37.938197 ° -121.336405 °	11 Y
11	0.64	0.64	Earthen Levee	Crown Surface / Depressions / Rutting	CR	M	Regrade the crown roadway for proper drainage.	37.938198 ° -121.336407 °	37.938198 ° -121.336407 °	12 Y
12	0.65	0.66	Earthen Levee	Slope Stability	WS	M	Repair slope instability.	37.938105 ° -121.336288 °	37.938023 ° -121.336173 °	13 Y
13	0.68	0.68	Earthen Levee	Vegetation	WS	U	Remove the wild growth other than native grasses from the levee slopes.	37.937808 ° -121.335913 °	37.937808 ° -121.335913 °	14 Y
14	0.79	0.79	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.936444 ° -121.334797 °	37.936444 ° -121.334797 °	76 Y
15	0.81	0.81	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.936217 ° -121.334698 °	37.936217 ° -121.334698 °	16 Y
16	0.94	1.02	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.935259 ° -121.332864 °	37.935049 ° -121.331334 °	77 Y

*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
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PO : Partially Obstructing
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N : Not Inspected/Rated
C : Corrected
W : Watch/Monitor

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway							Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River							Left	6.26	09/27/2010 09/28/2010	Richard Willoughby
LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
17	1.03	1.03	Earthen Levee	Erosion / Bank Caving	WS	M	Schedule repair of erosion site prior to the next inspection.	37.935018 ° -121.331248 °	37.935098 ° -121.331645 °	17 Y
18	1.09	1.09	Earthen Levee	Slope Stability	LS	M	Repair slope instability.	37.934645 ° -121.330310 °	37.934645 ° -121.330310 °	18 Y
19	1.14	1.17	Earthen Levee	Trim / Thin Trees	WS	M	Trim trees to at least five feet above ground level.	37.934118 ° -121.329657 °	37.933775 ° -121.329305 °	19
20	1.16	1.24	Supplemental	DWR Erosion Survey	WS	U	Inspector Comments: 9/07/2010: No significant changes observed on site. Some emergent vegetation at the water line. There is an exposed pipe discharge partially hanging at the mid-slope, possibly still used for discharging irrigation/runoff water. There is minimal rip rap protection along the bank, and what's left of it is no longer adequately protecting the bank. [2010 SiteID: RD0524U01RM41.79]	37.933347 ° -121.329110 °	37.933347 ° -121.329110 °	2 Y
21	1.17	1.25	Earthen Levee	Vegetation	LS	M	Remove the wild growth other than native grasses from the levee slopes.	37.933775 ° -121.329250 °	37.932784 ° -121.328765 °	915 Y
22	1.25	1.25	Earthen Levee	Encroachments	LS	M	Garbage	37.932665 ° -121.328808 °	37.932665 ° -121.328808 °	20 Y
23	1.31	1.31	Earthen Levee	Encroachments	WS	M	Pipe Inspector Comments: Pipe is not in use and needs to be properly abandoned.	37.931948 ° -121.328387 °	37.931948 ° -121.328387 °	33 Y
24	1.32	1.33	Earthen Levee	Erosion / Bank Caving	WS	M	Schedule repair of erosion site prior to the next inspection.	37.931858 ° -121.328308 °	37.931692 ° -121.328282 °	21 Y
25	1.41	1.42	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.930575 ° -121.328098 °	37.930420 ° -121.328245 °	22
26	1.51	1.51	Earthen Levee	Trim / Thin Trees	LS	U	Trim and thin trees to allow visibility of the ground and room to flood fight.	37.929118 ° -121.328368 °	37.929118 ° -121.328368 °	916 Y
27	1.56	1.74	Earthen Levee	Encroachments	LS	CO	Landscaping	37.928352 ° -121.328307 °	37.926497 ° -121.326248 °	23 Y
28	1.58	1.64	Supplemental	DWR Erosion Survey	WS	U	Inspector Comments: 09/07/2010: No signifcant changes observed on site. The concern here is the undermining of the levee toe where most of trees are. There are erosion pockets lined along the lower slope and at the base of the trees, exposing tree roots. There is minimal slope protection. [2010 SiteID: RD0524U01RM42.2]	37.927770 ° -121.327870 °	37.927770 ° -121.327870 °	79 Y
29	1.62	1.63	Earthen Levee	Vegetation	WS	U	Remove the wild growth other than native grasses from the levee slopes.	37.927635 ° -121.327812 °	37.927540 ° -121.327648 °	24 Y
30	1.62	1.63	Earthen Levee	Vegetation	WS	U	Remove the wild growth other than native grasses from the levee slopes.	37.927635 ° -121.327812 °	37.927540 ° -121.327648 °	25 Y

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Reclamation District No. 0524 Middle Roberts Island

Waterway							Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River							Left	6.26	09/27/2010 09/28/2010	Richard Willoughby
LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
31	1.63	1.66	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.927507 ° -121.327593 °	37.927295 ° -121.327298 °	26
32	1.64	1.64	Earthen Levee	Encroachments	WS	CO	Poles Inspector Comments: Landowner constructed boat dock without permit.	37.927372 ° -121.327278 °	37.927372 ° -121.327278 °	39 Y
33	1.66	1.70	Earthen Levee	Trim / Thin Trees	WS	N	Tree stumps. Inspector Comments: Several tree stumps on waterside shoulder.	37.927255 ° -121.327137 °	37.926855 ° -121.326672 °	8
34	1.69	1.69	Earthen Levee	Encroachments	WS	M	Stairways Inspector Comments: Stairs and retaining wall	37.927018 ° -121.326872 °	37.927018 ° -121.326872 °	45 Y
35	1.71	1.73	Earthen Levee	Slope Stability	WS	M	Repair slope instability.	37.926728 ° -121.326597 °	37.926730 ° -121.326508 °	27
36	1.75	1.75	Earthen Levee	Encroachments	LS	U	Garbage	37.926322 ° -121.326115 °	37.926322 ° -121.326115 °	28 Y
37	1.77	1.77	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.925993 ° -121.325777 °	37.926152 ° -121.325927 °	46
38	1.90	1.95	Earthen Levee	Encroachments	LS	PO	Landscaping	37.924364 ° -121.324473 °	37.923805 ° -121.324238 °	78
39	2.17	2.18	Earthen Levee	Erosion / Bank Caving	WS	W	Note and monitor erosion site.	37.921383 ° -121.322043 °	37.921300 ° -121.321902 °	30
40	2.22	2.28	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.920992 ° -121.321373 °	37.920505 ° -121.320485 °	31
41	2.29	2.31	Earthen Levee	Vegetation	LS	U	Elderberries are blocking visibility and flood fight capability.	37.920372 ° -121.320230 °	37.920273 ° -121.320022 °	32 Y
42	2.34	2.35	Earthen Levee	Erosion / Bank Caving	WS	W	Note and monitor erosion site.	37.919885 ° -121.319713 °	37.919703 ° -121.319702 °	34
43	2.46	2.50	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.918628 ° -121.320817 °	37.918438 ° -121.321452 °	36
44	2.47	2.48	Earthen Levee	Vegetation	LS	M	Elderberries are blocking visibility and flood fight capability.	37.918575 ° -121.320980 °	37.918515 ° -121.321110 °	35
45	2.48	2.48	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.918480 ° -121.321114 °	37.918480 ° -121.321114 °	80
46	2.52	2.52	Earthen Levee	Vegetation	LS	U	Elderberries are blocking visibility and flood fight capability.	37.918345 ° -121.321765 °	37.918302 ° -121.321923 °	37 Y
47	2.53	2.53	Earthen Levee	Vegetation	WS	U	Elderberries are blocking visibility and flood fight capability.	37.918287 ° -121.321980 °	37.918287 ° -121.321980 °	38 Y
48	2.55	2.59	Earthen Levee	Slope Stability	LS	M	Repair slope instability.	37.918060 ° -121.322384 °	37.917667 ° -121.322713 °	82

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway							Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River							Left	6.26	09/27/2010 09/28/2010	Richard Willoughby
LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
49	2.56	2.56	Earthen Levee	Vegetation	LS	M	Elderberries are blocking visibility and flood fight capability.	37.918047 ° -121.322415 °	37.918047 ° -121.322415 °	40
50	2.59	2.59	Earthen Levee	Encroachments	LS	M	Garbage	37.917673 ° -121.322718 °	37.917673 ° -121.322718 °	41 Y
51	2.59	2.60	Earthen Levee	Encroachments	LS	CO	Buildings	37.917673 ° -121.322723 °	37.917555 ° -121.322778 °	42
52	2.60	2.60	Earthen Levee	Animal Control	LS	M	Repair the levee slope damaged by livestock and prevent large animal access.	37.917475 ° -121.322808 °	37.917475 ° -121.322808 °	917
53	2.61	2.65	Earthen Levee	Vegetation	LS	M	Remove the wild growth other than native grasses from the levee slopes.	37.917222 ° -121.322652 °	37.916903 ° -121.322167 °	9
54	2.66	2.66	Earthen Levee	Vegetation	LS	U	Elderberries are blocking visibility and flood fight capability.	37.916780 ° -121.322095 °	37.916780 ° -121.322095 °	43 Y
55	2.67	2.69	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.916718 ° -121.322020 °	37.916502 ° -121.321980 °	918
56	2.67	2.67	Earthen Levee	Encroachments	WS	PO	Ramp	37.916698 ° -121.322007 °	37.916698 ° -121.322007 °	920
57	2.67	2.67	Earthen Levee	Erosion / Bank Caving	WS	M	Schedule repair of erosion site prior to the next inspection.	37.916650 ° -121.321987 °	37.916650 ° -121.321987 °	919
58	2.71	2.80	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.916180 ° -121.322165 °	37.915142 ° -121.323018 °	44
59	2.73	2.73	Earthen Levee	Encroachments	LS	M	Tree or limb	37.915747 ° -121.322470 °	37.915747 ° -121.322470 °	60
60	2.77	2.77	Earthen Levee	Encroachments	LS	M	Tree or limb Inspector Comments: Broken tree branch.	37.915503 ° -121.322745 °	37.915503 ° -121.322745 °	70
61	2.79	2.81	Earthen Levee	Slope Stability	LS	M	Repair the levee slope damaged by vehicle traffic and prevent access where possible.	37.915173 ° -121.322982 °	37.915098 ° -121.323183 °	47 Y
62	2.81	2.81	Earthen Levee	Encroachments	WS	M	Prunings	37.915125 ° -121.323227 °	37.915125 ° -121.323227 °	921
63	2.82	2.82	Earthen Levee	Vegetation	LS	U	Elderberries are blocking visibility and flood fight capability.	37.915022 ° -121.323443 °	37.915022 ° -121.323443 °	48 Y
64	2.83	2.83	Earthen Levee	Trim / Thin Trees	LS	M	Thin trees to allow visibility of the ground and room to flood fight.	37.915063 ° -121.323585 °	37.915063 ° -121.323585 °	91
65	2.88	2.88	Earthen Levee	Vegetation	LS	M	Elderberries are blocking visibility and flood fight capability.	37.914427 ° -121.324198 °	37.914427 ° -121.324198 °	49
66	2.93	2.95	Earthen Levee	Encroachments	LS	M	Prunings	37.913767 ° -121.324427 °	37.913503 ° -121.324488 °	50
67	2.96	2.96	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.913415 ° -121.324503 °	37.913415 ° -121.324503 °	51

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Waterway						Bank	Unit Miles	Inspection Start/End		Inspector
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LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
68	2.98	2.98	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.913010 ° -121.324497 °	37.913010 ° -121.324497 °	922 Y
69	3.04	3.04	Earthen Levee	Animal Control	LS	M	Repair the levee slope damaged by livestock and prevent large animal access.	37.912163 ° -121.324702 °	37.912163 ° -121.324702 °	924
70	3.10	3.12	Earthen Levee	Animal Control	LS	M	Exterminate rodents and backfill and compact or grout burrows.	37.911382 ° -121.324928 °	37.911088 ° -121.325113 °	925
71	3.33	3.35	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.908158 ° -121.325418 °	37.907872 ° -121.325443 °	926
72	3.37	3.40	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.907645 ° -121.325442 °	37.907157 ° -121.325408 °	52
73	3.38	3.39	Earthen Levee	Encroachments	LS	PO	Landscaping	37.907407 ° -121.325435 °	37.907177 ° -121.325392 °	92
74	3.39	3.45	Earthen Levee	Animal Control	WS	M	Exterminate rodents and backfill and compact or grout burrows.	37.907283 ° -121.325432 °	37.906503 ° -121.325002 °	53
75	3.43	3.49	Earthen Levee	Trim / Thin Trees	LS	M	Trim and thin trees to allow visibility of the ground and room to flood fight.	37.906747 ° -121.325248 °	37.906192 ° -121.324543 °	54
76	3.45	3.45	Earthen Levee	Encroachments	LS	M	Material Inspector Comments: Broken concrete pipes	37.906540 ° -121.325015 °	37.906540 ° -121.325015 °	56
77	3.45	3.45	Earthen Levee	Encroachments	LS	M	Garbage	37.906503 ° -121.325002 °	37.906503 ° -121.325002 °	55
78	3.47	3.47	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.906265 ° -121.324643 °	37.906265 ° -121.324643 °	93
79	3.54	3.64	Earthen Levee	Trim / Thin Trees	LS	M	Trim and thin trees to allow visibility of the ground and room to flood fight.	37.905638 ° -121.323892 °	37.904430 ° -121.324570 °	57
80	3.68	3.68	Earthen Levee	Slope Stability	WS	M	Repair the levee slope damaged by foot traffic and prevent access where possible.	37.904113 ° -121.325080 °	37.904113 ° -121.325080 °	58
81	3.80	3.80	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.902645 ° -121.326340 °	37.902645 ° -121.326340 °	927
82	3.82	3.82	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.902417 ° -121.326482 °	37.902417 ° -121.326482 °	59
83	3.84	3.85	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.902155 ° -121.326523 °	37.902002 ° -121.326550 °	928
84	3.89	4.01	Earthen Levee	Encroachments	LS	M	Equipment	37.901375 ° -121.326507 °	37.899745 ° -121.326630 °	62 Y
85	3.92	3.92	Earthen Levee	Vegetation	WS	M	Remove the wild growth other than native grasses from the levee slopes. Inspector Comments: Remove cactus	37.900952 ° -121.326443 °	37.900952 ° -121.326443 °	94

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Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway						Bank	Unit Miles	Inspection Start/End		Inspector
Unit No. 01 San Joaquin River						Left	6.26	09/27/2010 09/28/2010		Richard Willoughby
LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
86	3.93	3.93	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.900854 ° -121.326438 °	37.900854 ° -121.326438 °	83
87	4.07	4.07	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.898925 ° -121.327015 °	37.898925 ° -121.327015 °	61
88	4.08	4.13	Earthen Levee	Animal Control	LS	M	No rodents visible, but rodent burrows visible; need to backfill and compact or grout borrows.	37.898832 ° -121.327092 °	37.898090 ° -121.327457 °	64
89	4.40	4.56	Earthen Levee	Animal Control	LS	M	No rodents visible, but rodent burrows visible; need to backfill and compact or grout borrows.	37.894587 ° -121.329253 °	37.892493 ° -121.328267 °	65
90	4.64	4.64	Earthen Levee	Encroachments	LS	M	Garbage	37.891365 ° -121.328633 °	37.891365 ° -121.328633 °	66 Y
91	4.64	4.68	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.891337 ° -121.328685 °	37.890953 ° -121.328993 °	63
92	4.74	4.74	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.890108 ° -121.329523 °	37.890108 ° -121.329523 °	67
93	4.95	4.95	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level. Inspector Comments: Down tree laying on landside toe.	37.887578 ° -121.331237 °	37.887578 ° -121.331237 °	95
94	4.98	4.98	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.887277 ° -121.331609 °	37.887277 ° -121.331609 °	84
95	5.11	5.11	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.885400 ° -121.332153 °	37.885400 ° -121.332153 °	68
96	5.17	5.17	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.884592 ° -121.332168 °	37.884592 ° -121.332168 °	71
97	5.20	5.20	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees over roadway to at least 12 feet above ground level.	37.884075 ° -121.332118 °	37.884075 ° -121.332118 °	72
98	5.32	5.38	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.882377 ° -121.332598 °	37.881498 ° -121.332800 °	85
99	5.43	5.46	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.880945 ° -121.332837 °	37.880522 ° -121.332918 °	932
100	5.46	5.46	Earthen Levee	Animal Control	LS	M	Exterminate rodents and backfill and compact or grout burrows.	37.880575 ° -121.332890 °	37.880575 ° -121.332890 °	931
101	5.48	5.48	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.880085 ° -121.333045 °	37.880085 ° -121.333045 °	73
102	5.57	5.57	Earthen Levee	Trim / Thin Trees	WS	M	Trim trees to at least five feet above ground level.	37.878918 ° -121.333148 °	37.878918 ° -121.333148 °	96

*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

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PO : Partially Obstructing
CO : Completely Obstructing
N : Not Inspected/Rated
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

LMR No.	Levee Mile		Category	Item	* Location	** Rating	Action/Comment	GPS Latitude/Longitude		Issue No. Photo
	Start	End						Start	End	
103	5.65	5.66	Supplemental	DWR Erosion Survey	WS	M	Inspector Comments: 09/07/2010: No significant changes observed on site. Erosion site is located beneath Howard Road Bridge. Majority of the existing rip rap has slipped, dragging away levee materials and exposing the underlying soft soil. 08/06/2010: Recommend for annual assessment and monitoring during flood events, per CLRO. [2010 SiteID: RD0524U01RM46.12]	37.877880 ° -121.332550 °	37.877880 ° -121.332550 °	90 Y
104	5.86	5.86	Earthen Levee	Animal Control	LS	M	No rodents visible, but rodent burrows visible; need to backfill and compact or grout borrows.	37.875073 ° -121.333168 °	37.875073 ° -121.333168 °	69
105	5.92	5.94	Earthen Levee	Animal Control	WS	M	No rodents visible, but rodent burrows visible; need to backfill and compact or grout borrows.	37.874240 ° -121.333187 °	37.874002 ° -121.333027 °	75
106	5.92	5.92	Earthen Levee	Erosion / Bank Caving	WS	M	Note and monitor erosion site.	37.874240 ° -121.333185 °	37.874165 ° -121.333155 °	74 Y
107	5.97	5.97	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.873678 ° -121.332550 °	37.873678 ° -121.332550 °	86
108	5.99	6.00	Earthen Levee	Encroachments	LS	PO	Fences	37.873545 ° -121.332308 °	37.873445 ° -121.332127 °	87
109	5.99	6.00	Earthen Levee	Encroachments	LS	PO	Landscaping Inspector Comments: Catus	37.873543 ° -121.332308 °	37.873445 ° -121.332127 °	88 Y
110	6.01	6.05	Earthen Levee	Encroachments	LS	CO	Buildings	37.873377 ° -121.331977 °	37.873102 ° -121.331382 °	89 Y
111	6.02	6.02	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.873300 ° -121.331928 °	37.873300 ° -121.331928 °	81
112	6.05	6.05	Earthen Levee	Erosion / Bank Caving	WS	M	Schedule repair of erosion site prior to the next inspection.	37.873047 ° -121.331408 °	37.873047 ° -121.331408 °	933
113	6.18	6.24	Earthen Levee	Vegetation	LS	M	Remove the wild growth other than native grasses from the levee slopes.	37.871548 ° -121.330295 °	37.870678 ° -121.329947 °	97
114	6.23	6.23	Earthen Levee	Trim / Thin Trees	LS	M	Trim trees to at least five feet above ground level.	37.870842 ° -121.330000 °	37.870842 ° -121.330000 °	98

*** Location**

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	1
Start Levee Mile	0.20
End Levee Mile	0.20
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking east from crown

richard_f_20101001_314.jpg



Levee Mile Report Line	1
Start Levee Mile	0.20
End Levee Mile	0.20
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking northeast from crown

richard_f_20101001_315.jpg



Levee Mile Report Line	3
Start Levee Mile	0.36
End Levee Mile	0.36
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Garbage pile at landward toe at LM 0.36

richard_f_20100921_108.jpg



*** Location**

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	4
Start Levee Mile	0.38
End Levee Mile	0.39
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Minor erosion from LM 0.38 to 0.39

richard_f_20100921_091.jpg



Levee Mile Report Line	6
Start Levee Mile	0.48
End Levee Mile	0.49
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Major erosion from LM 0.48 to 0.49

richard_f_20100921_092.jpg



Levee Mile Report Line	6
Start Levee Mile	0.48
End Levee Mile	0.49
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Update of erosion site at LM 0.48 to 0.49

richard_f_20100921_093.jpg



*** Location**

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	6
Start Levee Mile	0.48
End Levee Mile	0.49
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking southeast at erosion (no change as 4/2010)

richard_f_20100921_094.jpg



Levee Mile Report Line	6
Start Levee Mile	0.48
End Levee Mile	0.49
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking at erosion from the top of the levee (no change as of 4/2010)

richard_f_20100921_095.jpg



Levee Mile Report Line	7
Start Levee Mile	0.51
End Levee Mile	0.52
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Erosion from LM 0.51 to 0.52

richard_f_20100921_096.jpg



*** Location**

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	7
Start Levee Mile	0.51
End Levee Mile	0.52
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Update of erosion site at LM 0.51 to 0.52

richard_f_20100921_097.jpg



Levee Mile Report Line	7
Start Levee Mile	0.51
End Levee Mile	0.52
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking southeast at erosion on waterside slope , no change as of 4/2010)

richard_f_20100921_098.jpg



Levee Mile Report Line	7
Start Levee Mile	0.51
End Levee Mile	0.52
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking at erosion from the top of the levee. No change as of 4/2010

richard_f_20100921_099.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	8
Start Levee Mile	0.53
End Levee Mile	0.60
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Upstream view of site. Some of the broken concrete used as revetment is sliding, dragging down levee materials.

SJR2010_RM41.15U1LM.56LBa.jpg



Levee Mile Report Line	8
Start Levee Mile	0.53
End Levee Mile	0.60
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Direct view of site.

SJR2010_RM41.15U1LM.56LBb.jpg



Levee Mile Report Line	8
Start Levee Mile	0.53
End Levee Mile	0.60
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Upstream view. Sloughing mid-slope possibly caused by sliding of the revetment.

SJR2010_RM41.15U1LM.56LBc.jpg



*** Location**

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	8
Start Levee Mile	0.53
End Levee Mile	0.60
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Direct view of site showing emergent vegetation growing at the midslope.

SJR2010_RM41.15U1LM.56LBd.jpg



Levee Mile Report Line	10
Start Levee Mile	0.63
End Levee Mile	0.64
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Looking north at bamboo on waterside slope.

richard_f_20100921_100.jpg



Levee Mile Report Line	10
Start Levee Mile	0.63
End Levee Mile	0.64
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Looking north at bamboo on waterside slope as of 4/2010 no change.

richard_f_20100921_101.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	11
Start Levee Mile	0.64
End Levee Mile	0.64
Location	Crown
Category	Earthen Levee
Item	Crown Surface / Depressions / Rutting
Large hole 3 x 3 on levee crown near waterside shoulder at LM 0.64	
richard_f_20100921_102.jpg	



Levee Mile Report Line	12
Start Levee Mile	0.65
End Levee Mile	0.66
Location	Water Side
Category	Earthen Levee
Item	Slope Stability
Erosion from LM 0.65 to 0.66	
richard_f_20100921_103.jpg	



Levee Mile Report Line	12
Start Levee Mile	0.65
End Levee Mile	0.66
Location	Water Side
Category	Earthen Levee
Item	Slope Stability
Update of erosion site at LM 0.65 to 0.66	
richard_f_20100921_104.jpg	



* 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
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	12
Start Levee Mile	0.65
End Levee Mile	0.66
Location	Water Side
Category	Earthen Levee
Item	Slope Stability

Looking south at erosion on waterside shoulder.

richard_f_20100921_105.jpg



Levee Mile Report Line	13
Start Levee Mile	0.68
End Levee Mile	0.68
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Bamboo on waterward slope at LM 0.68

richard_f_20100921_106.jpg



Levee Mile Report Line	13
Start Levee Mile	0.68
End Levee Mile	0.68
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Looking southeast at bamboo on waterside shoulder as of 4/2010.

richard_f_20100921_107.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	17
Start Levee Mile	1.03
End Levee Mile	1.03
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking upstream (south) at erosion site.

richard_f_20100921_109.jpg



Levee Mile Report Line	18
Start Levee Mile	1.09
End Levee Mile	1.09
Location	Land Side
Category	Earthen Levee
Item	Slope Stability

Landward slope damage at LM 1.09

richard_f_20100921_110.jpg



Levee Mile Report Line	18
Start Levee Mile	1.09
End Levee Mile	1.09
Location	Land Side
Category	Earthen Levee
Item	Slope Stability

Updated picture of erosion site on landside shoulder.

richard_f_20100921_111.jpg



*** Location**

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	18
Start Levee Mile	1.09
End Levee Mile	1.09
Location	Land Side
Category	Earthen Levee
Item	Slope Stability

Update of above slope stability.

richard_f_20100921_112.jpg



Levee Mile Report Line	18
Start Levee Mile	1.09
End Levee Mile	1.09
Location	Land Side
Category	Earthen Levee
Item	Slope Stability

Looking at updated slope stability as 4/2010

richard_f_20100921_113.jpg



Levee Mile Report Line	20
Start Levee Mile	1.16
End Levee Mile	1.24
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Upstream view of site where sloughing is occurring.

SJR2010_RM41.79U1LM1.2LBa.jpg



*** Location**

LS : Land Side
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CR : Crown

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	20
Start Levee Mile	1.16
End Levee Mile	1.24
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Downstream view of site.

SJR2010_RM41.79U1LM1.2LBb.jpg



Levee Mile Report Line	20
Start Levee Mile	1.16
End Levee Mile	1.24
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Downstream view of site.

SJR2010_RM41.79U1LM1.2LBc.jpg



Levee Mile Report Line	20
Start Levee Mile	1.16
End Levee Mile	1.24
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Downstream view of site.

SJR2010_RM41.79U1LM1.2LBd.jpg



*** Location**

LS : Land Side
WS : Water Side
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	21
Start Levee Mile	1.17
End Levee Mile	1.25
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Looking southwest at dense veg. on landside toe.

richard_f_20100921_139.jpg



Levee Mile Report Line	22
Start Levee Mile	1.25
End Levee Mile	1.25
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Concrete rubble with rebar on landward shoulder at LM 1.25

richard_f_20100921_114.jpg



Levee Mile Report Line	22
Start Levee Mile	1.25
End Levee Mile	1.25
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Looking south at concrete rubble on landside slope.

richard_f_20100921_115.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

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C : Corrected
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	23
Start Levee Mile	1.31
End Levee Mile	1.31
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Looking north at broken pipe.

richard_f_20101001_316.jpg



Levee Mile Report Line	23
Start Levee Mile	1.31
End Levee Mile	1.31
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Looking west at pipe on landside slope.

richard_f_20101001_317.jpg



Levee Mile Report Line	24
Start Levee Mile	1.32
End Levee Mile	1.33
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Erosion from LM 1.32 to 1.33

richard_f_20100921_116.jpg



*** Location**

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	24
Start Levee Mile	1.32
End Levee Mile	1.33
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking at erosion from top of levee

richard_f_20100921_117.jpg



Levee Mile Report Line	24
Start Levee Mile	1.32
End Levee Mile	1.33
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking at update of erosion site at LM 1.32 to 1.33

richard_f_20100921_118.jpg



Levee Mile Report Line	26
Start Levee Mile	1.51
End Levee Mile	1.51
Location	Land Side
Category	Earthen Levee
Item	Trim / Thin Trees

Dense vegetation on landside toe.

richard_f_20100921_140.jpg



*** 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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	26
Start Levee Mile	1.51
End Levee Mile	1.51
Location	Land Side
Category	Earthen Levee
Item	Trim / Thin Trees

Looking south at dense veg. on landside slope and toe.

richard_f_20100921_141.jpg



Levee Mile Report Line	27
Start Levee Mile	1.56
End Levee Mile	1.74
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Overgrown landscaping on landward slope from LM 1.56 to 1.74

richard_f_20100921_119.jpg



Levee Mile Report Line	28
Start Levee Mile	1.58
End Levee Mile	1.64
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Front view of site where undermining has occurred.

SJR2010_RM42.20U1LM1.61LBa.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
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PO : Partially Obstructing
CO : Completely Obstructing
N : Not Inspected/Rated
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	28
Start Levee Mile	1.58
End Levee Mile	1.64
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Large trees along the levee toe. There is minimal slope protection.

SJR2010_RM42.20U1LM1.61LBb.jpg



Levee Mile Report Line	28
Start Levee Mile	1.58
End Levee Mile	1.64
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Large trees along the levee toe where undermining at the toe has occurred.

SJR2010_RM42.20U1LM1.61LBc.jpg



Levee Mile Report Line	28
Start Levee Mile	1.58
End Levee Mile	1.64
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Close up view of a pocket erosion that is directly affecting the base of a tree. Note the exposed tree roots. This image was taken on 09/29/2009.

SJR2010_RM42.20U1LM1.61LBd.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

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N : Not Inspected/Rated

C : Corrected
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	29
Start Levee Mile	1.62
End Levee Mile	1.63
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Looking north at dense veg on landside and waterside slopes.

richard_f_20101001_323.jpg



Levee Mile Report Line	30
Start Levee Mile	1.62
End Levee Mile	1.63
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Looking southeast at dense veg. on waterside slope.

richard_f_20100921_120.jpg



Levee Mile Report Line	32
Start Levee Mile	1.64
End Levee Mile	1.64
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Looking east at non-permitted boat dock.

richard_f_20101001_318.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
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U : Unacceptable
PO : Partially Obstructing
CO : Completely Obstructing
N : Not Inspected/Rated
C : Corrected
W : Watch/Monitor

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	32
Start Levee Mile	1.64
End Levee Mile	1.64
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Looking at garbage on waterside slope.

richard_f_20101001_319.jpg



Levee Mile Report Line	34
Start Levee Mile	1.69
End Levee Mile	1.69
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Looking northeast on non-permitted concrete stairs on waterside slope.

richard_f_20101001_320.jpg



Levee Mile Report Line	34
Start Levee Mile	1.69
End Levee Mile	1.69
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Looking west at concrete stairs on waterside slope.

richard_f_20101001_321.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
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PO : Partially Obstructing
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N : Not Inspected/Rated

C : Corrected
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	34
Start Levee Mile	1.69
End Levee Mile	1.69
Location	Water Side
Category	Earthen Levee
Item	Encroachments

Looking southwest at retaning wall connect to concrete stairs.

richard_f_20101001_322.jpg



Levee Mile Report Line	36
Start Levee Mile	1.75
End Levee Mile	1.75
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Garbage on landward toe from LM 1.75 to 1.76

richard_f_20100921_121.jpg



Levee Mile Report Line	36
Start Levee Mile	1.75
End Levee Mile	1.75
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Looking at updated trash pile on landside slope and toe.

richard_f_20100921_122.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

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CO : Completely Obstructing
N : Not Inspected/Rated

C : Corrected
W : Watch/Monitor

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	36
Start Levee Mile	1.75
End Levee Mile	1.75
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Looking west at prunings on landside toe.

richard_f_20100921_123.jpg



Levee Mile Report Line	41
Start Levee Mile	2.29
End Levee Mile	2.31
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Looking south at dense veg on landside slope and toe.

richard_f_20100921_124.jpg



Levee Mile Report Line	46
Start Levee Mile	2.52
End Levee Mile	2.52
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Looking south at elderberry on landside slope.

richard_f_20100921_125.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

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U : Unacceptable

PO : Partially Obstructing
CO : Completely Obstructing
N : Not Inspected/Rated

C : Corrected
W : Watch/Monitor

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	46
Start Levee Mile	2.52
End Levee Mile	2.52
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Looking southwest at trees along levee landside toe.

richard_f_20100921_126.jpg



Levee Mile Report Line	46
Start Levee Mile	2.52
End Levee Mile	2.52
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Looking north at elderberry and trees on landside slope.

richard_f_20100921_127.jpg



Levee Mile Report Line	47
Start Levee Mile	2.53
End Levee Mile	2.53
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Looking south at elderberry on waterside slope.

richard_f_20100921_128.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
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U : Unacceptable
PO : Partially Obstructing
CO : Completely Obstructing
N : Not Inspected/Rated
C : Corrected
W : Watch/Monitor

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	47
Start Levee Mile	2.53
End Levee Mile	2.53
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Looking north at elderberry on waterside slope.

richard_f_20100921_129.jpg



Levee Mile Report Line	50
Start Levee Mile	2.59
End Levee Mile	2.59
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Looking southwest at elderberries on landside slope.

richard_f_20100921_130.jpg



Levee Mile Report Line	54
Start Levee Mile	2.66
End Levee Mile	2.66
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Looking southwest at structures on landside.

richard_f_20100921_131.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

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N : Not Inspected/Rated
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	61
Start Levee Mile	2.79
End Levee Mile	2.81
Location	Land Side
Category	Earthen Levee
Item	Slope Stability

Looking southwest at elderberry on landside slope.

richard_f_20100921_132.jpg



Levee Mile Report Line	63
Start Levee Mile	2.82
End Levee Mile	2.82
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Looking south at elderberry on landside slope.

richard_f_20100921_133.jpg



Levee Mile Report Line	68
Start Levee Mile	2.98
End Levee Mile	2.98
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking east at erosion on waterside toe.

richard_f_20101001_324.jpg



* 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
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	84
Start Levee Mile	3.89
End Levee Mile	4.01
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Looking upstream at equipment on landside shoulder

richard_f_20100921_135.jpg



Levee Mile Report Line	90
Start Levee Mile	4.64
End Levee Mile	4.64
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Garbage at landward toe next to ramp at LM 4.64

richard_f_20100921_136.jpg



Levee Mile Report Line	103
Start Levee Mile	5.65
End Levee Mile	5.66
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Sloughing rip rap just below the Howard Bridge abutment.

SJR2010_RM46.12U1LM5.65LBa.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
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PO : Partially Obstructing
CO : Completely Obstructing
N : Not Inspected/Rated

C : Corrected
W : Watch/Monitor

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	103
Start Levee Mile	5.65
End Levee Mile	5.66
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Upstream view of the sloughing rip rap adjacent to Howard Bridge.

SJR2010_RM46.12U1LM5.65LBb.jpg



Levee Mile Report Line	103
Start Levee Mile	5.65
End Levee Mile	5.66
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Front view of sloughing rip rap.

SJR2010_RM46.12U1LM5.65LBc.jpg



Levee Mile Report Line	103
Start Levee Mile	5.65
End Levee Mile	5.66
Location	Water Side
Category	Supplemental
Item	DWR Erosion Survey

Downstream view of the site.

SJR2010_RM46.12U1LM5.65LBd.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
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PO : Partially Obstructing
CO : Completely Obstructing
N : Not Inspected/Rated

C : Corrected
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	106
Start Levee Mile	5.92
End Levee Mile	5.92
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Erosion at waterward toe and around irrigation pipe at LM 5.92

richard_f_20100921_137.jpg



Levee Mile Report Line	106
Start Levee Mile	5.92
End Levee Mile	5.92
Location	Water Side
Category	Earthen Levee
Item	Erosion / Bank Caving

Looking southeast at erosion around pipe.

richard_f_20101001_325.jpg



Levee Mile Report Line	109
Start Levee Mile	5.99
End Levee Mile	6.00
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Looking southeast at fence and cactus on landside slope and toe.

richard_f_20101001_326.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

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N : Not Inspected/Rated

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2010

Reclamation District No. 0524 Middle Roberts Island

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.26	09/27/2010 09/28/2010	Richard Willoughby

Levee Mile Report Line	110
Start Levee Mile	6.01
End Levee Mile	6.05
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Looking downstream at building on landside toe.

richard_f_20100921_138.jpg



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable PO : Partially Obstructing C : Corrected
M : Minimally Acceptable CO : Completely Obstructing W : Watch/Monitor
U : Unacceptable N : Not Inspected/Rated