

**Flood Control Project Maintenance  
Levee Inspections**

**Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2015**

**Reclamation District No. 2101 Blewett**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start		Rating **	A	Issue No.	2
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Operations & Maintenance Manuals			o	o
DWR ID	DWR_RD2101_01_s_2013_2				
Action/Comments					
Inspector Comments: The LMA has the O&M Manual available electronically.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_2\_20150921\_00025.jpg



View of the O&M manual and other documentation.

LM Start		Rating **	A	Issue No.	4
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Emergency Supplies & Equipment			o	o
DWR ID	DWR_RD2101_01_s_2013_4				
Action/Comments					
Inspector Comments: LMA has emergency supplies on site at the warehouse.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_4\_20150921\_00024.jpg



View of the emergency flood fight supplies in the shop.

LM Start		Rating **	A	Issue No.	5
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Flood Preparedness & Training			o	o
DWR ID	DWR_RD2101_01_s_2013_5				
Action/Comments					
Inspector Comments: LMA is current on flood fight training.					

No Photos

<b>* Location</b> LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	<b>N</b> : Not Inspected/Rated <b>C</b> : Corrected <b>A/W</b> : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 San Joaquin River	Left	3.16	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start	<b>0.04</b>	Rating **	U	Issue No.	<b>12</b>
LM End	<b>0.04</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		37.657648 °	37.657648 °	
			-121.253812 °	-121.253812 °	
DWR ID	DWR_RD2101_01_s_2012_12				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_12\_20150921\_00026.jpg



View of the rodent holes on the waterside levee slope, facing upstream.

LM Start	<b>0.08</b>	Rating **	M	Issue No.	<b>16</b>
LM End	<b>0.08</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		37.657811 °	37.657811 °	
			-121.253269 °	-121.253269 °	
DWR ID	DWR_RD2101_01_s_2013_16				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. Inspector Comments: Continue rodent extermination and backfilling the rodent burrows.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_16\_20150910\_00008.jpg



View of rodent burrows on the landside levee slope.

LM Start	<b>0.70</b>	Rating **	A/W	Issue No.	<b>26</b>
LM End	<b>0.70</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		37.659907 °	37.659907 °	
			-121.244219 °	-121.244219 °	
DWR ID	DWR_RD2101_01_s_2013_26				
Action/Comments					
Exterminate rodents and backfill and compact or grout burrows.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_26\_20150910\_00010.jpg



View of the rodent burrows on the waterside levee slope.

<b>* Location</b> LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 San Joaquin River	Left	3.16	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start	<b>0.75</b>	Rating **	M	Issue No.	<b>11</b>
LM End	<b>0.75</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Trim / Thin Trees		37.659705 °	37.659705 °	
			-121.243306 °	-121.243306 °	
DWR ID	DWR_RD2101_01_f_2012_11				
Action/Comments					
Trim trees to at least five feet above ground level. Inspector Comments: Trim tree to allow access and visibility.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_11\_20150921\_00027.jpg



View of tree branches obstructing waterside slope.

LM Start	<b>0.87</b>	Rating **	C	Issue No.	<b>3</b>
LM End	<b>0.87</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		37.658663 °	37.658663 °	
			-121.241750 °	-121.241750 °	
DWR ID	DWR_RD2101_01_s_2012_3				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

No Photos

LM Start	<b>1.02</b>	Rating **	N	Issue No.	<b>33</b>
LM End	<b>1.02</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Trim / Thin Trees		37.656745 °	37.656745 °	
			-121.241104 °	-121.241104 °	
DWR ID	DWR_RD2101_01_f_2014_33				
Action/Comments					
Tree stumps.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_33\_20150910\_00016.jpg



View of the tree stump at the waterside levee toe.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start	<b>1.59</b>	Rating **	A/W	Issue No.	<b>13</b>
LM End	<b>1.59</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		37.651555 °	37.651555 °	
			-121.234319 °	-121.234319 °	
DWR ID	DWR_RD2101_01_s_2012_13				
Action/Comments					
Pipe Inspector Comments: Pipe penetrates through levee. Closure valve on water side slope.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_13\_20150910\_00007.jpg



Photo of pump in background and CMP riser with valve in foreground.

LM Start	<b>1.86</b>	Rating **	U	Issue No.	<b>1</b>
LM End	<b>1.95</b>	Issue Type +	Ma	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR Erosion Survey		37.650259 °	37.650259 °	
			-121.228961 °	-121.228961 °	
DWR ID					
Action/Comments					
Inspector Comments: 08/19/2015: No significant change observed. 07/17/2014: No significant change observed. 09/20/2013: Site has been visited. There are signs of further erosion development along the levee slope and toe. 07/18/2012: The erosion has further developed toward levee crown. Vegetation has been removed. 08/18/2011: The erosion progressed significantly during the past flood season. The levee toe along the erosion site was washed away, and the erosion has cut the levee structure up to the point about 1/3 of the levee slope. The scarp height is approximately 17 feet. Very dense vegetation and trees are visible. 10/19/2010: No significant change observed on site. Remaining levee berm topsoil is of silty sand mixture. The erosion is near the downstream transition. An eddy has formed, and has scoured away a 100-foot section of the bank, possibly encroaching into the levee prism. Vegetation on site includes willows, oak, and cotton wood located from the bench to the toe. On the landside are rows of corn crop. 08/05/2010: Recommended for Repair, per CLRO. 2009: Site recommended as annual assessment and monitoring if critical erosion site, per CLRO CES Evaluation 2008 Report; an eddy has formed, eroding bank and intruding into the levee prism; Site # is the same as RM76.3, LM1.89; previously rated "U". 08/30/2007: Recommended for short list of immediate repair sites; silty sand levee material. [2015 Site ID:RD2101U01RM73.92]					

Photo 1 of 3 : SJR2015\_RD2101U01RM73.92\_1.jpg



Upstream view of the erosion.

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	<b>N : Not Inspected/Rated</b> C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 San Joaquin River	Left	3.16	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start	<b>1.86</b>	Rating **	U	Issue No.	<b>1 (cont)</b>
LM End	<b>1.95</b>	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.650259 °	37.650259 °
				-121.228961 °	-121.228961 °
DWR ID					

Photo 2 of 3 : SJR2015\_RD2101U01RM73.92\_3.jpg



**Action/Comments**

Inspector Comments: 08/19/2015: No significant change observed.  
 07/17/2014: No significant change observed.  
 09/20/2013: Site has been visited. There are signs of further erosion development along the levee slope and toe.  
 07/18/2012: The erosion has further developed toward levee crown. Vegetation has been removed.  
 08/18/2011: The erosion progressed significantly during the past flood season. The levee toe along the erosion site was washed away, and the erosion has cut the levee structure up to the point about 1/3 of the levee slope. The scarp height is approximately 17 feet. Very dense vegetation and trees are visible.  
 10/19/2010: No significant change observed on site. Remaining levee berm topsoil is of silty sand mixture. The erosion is near the downstream transition. An eddy has formed, and has scoured away a 100-foot section of the bank, possibly encroaching into the levee prism. Vegetation on site includes willows, oak, and cotton wood located from the bench to the toe. On the landside are rows of corn crop.  
 08/05/2010: Recommended for Repair, per CLRO.  
 2009: Site recommended as annual assessment and monitoring if critical erosion site, per CLRO CES Evaluation 2008 Report; an eddy has formed, eroding bank and intruding into the levee prism; Site # is the same as RM76.3, LM1.89; previously rated "U".  
 08/30/2007: Recommended for short list of immediate repair sites; silty sand levee material. [2015 Site ID:RD2101U01RM73.92]

Downstream view of the erosion.

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Unit No. 01 San Joaquin River	Left	3.16	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start	1.86	Rating **	U	Issue No.	1 (cont)
LM End	1.95	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.650259 °	37.650259 °
DWR ID				-121.228961 °	-121.228961 °
Action/Comments					
<p>Inspector Comments: 08/19/2015: No significant change observed. 07/17/2014: No significant change observed. 09/20/2013: Site has been visited. There are signs of further erosion development along the levee slope and toe. 07/18/2012: The erosion has further developed toward levee crown. Vegetation has been removed. 08/18/2011: The erosion progressed significantly during the past flood season. The levee toe along the erosion site was washed away, and the erosion has cut the levee structure up to the point about 1/3 of the levee slope. The scarp height is approximately 17 feet. Very dense vegetation and trees are visible. 10/19/2010: No significant change observed on site. Remaining levee berm topsoil is of silty sand mixture. The erosion is near the downstream transition. An eddy has formed, and has scoured away a 100-foot section of the bank, possibly encroaching into the levee prism. Vegetation on site includes willows, oak, and cotton wood located from the bench to the toe. On the landside are rows of corn crop. 08/05/2010: Recommended for Repair, per CLRO. 2009: Site recommended as annual assessment and monitoring if critical erosion site, per CLRO CES Evaluation 2008 Report; an eddy has formed, eroding bank and intruding into the levee prism; Site # is the same as RM76.3, LM1.89; previously rated "U". 08/30/2007: Recommended for short list of immediate repair sites; silty sand levee material. [2015 Site ID:RD2101U01RM73.92]</p>					

Photo 3 of 3 : SJR2015\_RD2101U01RM73.92\_8.jpg



Close view of the erosion. Levee crest is approximately 8 feet above the erosion.

LM Start	2.36	Rating **	C	Issue No.	30
LM End	2.36	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.645785 °	37.645785 °
DWR ID	DWR_RD2101_01_s_2012_30			-121.226337 °	-121.226337 °
Action/Comments					
Exterminate rodents and backfill and compact or grout burrows.					

No Photos

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	3.16	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start	<b>2.83</b>	Rating **	U	Issue No.	<b>27</b>
LM End	<b>2.83</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		37.640425 °	37.640425 °	
			-121.230139 °	-121.230139 °	
DWR ID	DWR_RD2101_01_s_2012_27				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. Inspector Comments: Burrows on both sides of levee. Backfill the burrows to restore the levee to original condition.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_27\_20150910\_00011.jpg



View of multiple rodent holes on the levee slope.

LM Start	<b>2.85</b>	Rating **	A/W	Issue No.	<b>28</b>
LM End	<b>2.85</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		37.640134 °	37.640134 °	
			-121.230019 °	-121.230019 °	
DWR ID	DWR_RD2101_01_s_2012_28				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. Inspector Comments: Rodent holes were backfilled. Continue to monitor the area and exterminate the rodents.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_28\_20150910\_00012.jpg



View of numerous rodent holes with bait stations present.

LM Start	<b>2.87</b>	Rating **	M	Issue No.	<b>29</b>
LM End	<b>2.87</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		37.639852 °	37.639852 °	
			-121.229980 °	-121.229980 °	
DWR ID	DWR_RD2101_01_s_2012_29				
Action/Comments					
Note and monitor erosion site.					

Photo 1 of 2 : FA\_2015\_RD2101\_326\_29\_20150910\_00013.jpg



View of repaired site, but it appears that erosion is still occurring.  
09/25/2012

<b>* Location</b> LS : Land Side    N/A : Not Applicable WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	<b>N : Not Inspected/Rated</b> C : Corrected A/W : Acceptable but Monitor & Maintain	<b>+ Issue Type</b> Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 San Joaquin River	Left	3.16	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start	<b>2.87</b>	Rating **	M	Issue No.	<b>29 (cont)</b>
LM End	<b>2.87</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.639852 °	37.639852 °
				-121.229980 °	-121.229980 °
DWR ID	DWR_RD2101_01_s_2012_29				
Action/Comments					
Note and monitor erosion site.					

Photo 2 of 2 : FA\_2015\_RD2101\_326\_29\_20150910\_00014.jpg



Levee slope is being eroded at this location. Repair needed to preserve access road.

LM Start	<b>2.98</b>	Rating **	M	Issue No.	<b>17</b>
LM End	<b>2.98</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.638760 °	37.638760 °
				-121.231341 °	-121.231341 °
DWR ID	DWR_RD2101_01_s_2012_17				
Action/Comments					
Exterminate rodents and backfill and compact or grout burrows. Inspector Comments: Active burrows with rodents present.					

Photo 1 of 1 : FA\_2015\_RD2101\_326\_17\_20150910\_00009.jpg



Numerous burrows present, some already caving in, others are active.

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River (Spur Levee)	Right	0.30	09/16/2015 09/16/2015	Maksim Khashchuk

LM Start	<b>0.03</b>	Rating **	A/W	Issue No.	<b>1</b>
LM End	<b>0.03</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Slope Stability		37.660251 °	37.660251 °	
			-121.243372 °	-121.243372 °	
DWR ID	DWR_RD2101_02_f_2015_1				
Action/Comments					
Repair the levee slope damaged by vehicle traffic and prevent access where possible. Inspector Comments: Monitor the slope for potential further erosion. Repair as needed.					

Photo 1 of 1 : FA\_2015\_RD2101\_327\_1\_20150921\_00002.jpg



View of the vehicle tracks on the levee slope.

LM Start	<b>0.23</b>	Rating **	C	Issue No.	<b>2</b>
LM End	<b>0.23</b>	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		37.662968 °	37.662968 °	
			-121.242674 °	-121.242674 °	
DWR ID	DWR_RD2101_02_f_2013_2				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. Inspector Comments: Backfill and compact the rodent holes to restore the levee to original condition.					

No Photos

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