

**Flood Control Project Maintenance
Levee Inspections**
LMA District Cover Sheet
Spring 2019 Levee Inspection Results

Reclamation District No. 2089 Stark

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

** 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

Spring 2019 Levee Inspection Results

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles
Unit No. 01 Old River	Right	1.51

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/4/2019 - 4/4/2019			
DWR Inspector	Alberto De Leon			
Accompanied By	Wade Wylie DWR			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

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_RD2089_01_s_2013_4				
Comment Code					
Inspector Comment					
The O&M Manual is available at the LMA's office.					

No Photos

LM Start		Rating **	A	Issue No.	15
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment				
DWR ID	DWR_RD2089_01_s_2013_15				
Comment Code					
Inspector Comment					
The LMA has flood fighting supplies on-site.					

No Photos

LM Start		Rating **	M	Issue No.	34
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training				
DWR ID	DWR_RD2089_01_s_2013_34				
Comment Code					
Inspector Comment					
The LMA has not attended a flood fight training class in the past few years. They do have an emergency plan.					

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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.00	Rating **	M	Issue No.	9
LM End	0.38	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.811681 °	37.809755 °
				-121.384930 °	-121.391520 °
DWR ID	DWR_RD2089_01_s_2012_9				
Comment Code					
DT : Ditch					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_316_9_20190313_00010.jpg



Ditch flows parallel with the utility line shown in the photo. 05/24/2011

LM Start	0.00	Rating **	U	Issue No.	24
LM End	0.77	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.811547 °	37.808843 °
				-121.385268 °	-121.397613 °
DWR ID	DWR_RD2089_01_f_2018_24				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 2 : SP_2019_RD2089_316_24_20190313_00025.jpg



Typical view of landward slope. (Fall 2018)

LM Start	0.00	Rating **	U	Issue No.	24 (cont)
LM End	0.77	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2019_RD2089_316_24_20190422_00056.jpg



Typical view of vegetation on landside slope. (Spring 2019)

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.02	Rating **	U	Issue No.	16
LM End	1.51	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.811547 °	37.806633 °
				-121.385268 °	-121.407885 °
DWR ID	DWR_RD2089_01_f_2018_16				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 2 : SP_2019_RD2089_316_16_20190313_00014.jpg



Looking at typical view of waterward slope. (Fall 2018)

LM Start	0.02	Rating **	U	Issue No.	16 (cont)
LM End	1.51	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : SP_2019_RD2089_316_16_20190422_00055.jpg



Typical view of vegetation on waterside slope. (Spring 2019)

LM Start	0.02	Rating **	M	Issue No.	12
LM End	0.02	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.811537 °	37.811537 °
				-121.385354 °	-121.385354 °
DWR ID	DWR_RD2089_01_s_2019_12				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

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
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.03	Rating **	U	Issue No.	18
LM End	0.03	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.811518 °	37.811518 °
				-121.385430 °	-121.385430 °
DWR ID	DWR_RD2089_01_f_2018_18				
Comment Code					
T2 : Thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_316_18_20190313_00017.jpg



Looking west at untrimmed trees on landward slope. (Fall 2018)

LM Start	0.03	Rating **	M	Issue No.	1
LM End	0.03	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.811508 °	37.811508 °
				-121.385464 °	-121.385464 °
DWR ID	DWR_RD2089_01_s_2012_1				
Comment Code					
ST : Stairway					
Inspector Comment					
Steps have been cut into the levee slope, this could become an erosion point, please fill and compact.					

Photo 1 of 2 : SP_2019_RD2089_316_1_20190313_00001.jpg



View of the stairs eroding into the landside levee slope.

LM Start	0.03	Rating **	M	Issue No.	1 (cont)
LM End	0.03	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2019_RD2089_316_1_20190313_00002.jpg



View of the stairs eroding into the landside levee slope. (Fall 2018)

*** 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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.09	Rating **	M	Issue No.	21
LM End	0.09	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.811268 °	37.811268 °
				-121.386521 °	-121.386521 °
DWR ID	DWR_RD2089_01_s_2019_21				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	0.24	Rating **	M	Issue No.	940
LM End	0.24	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.810412 °	37.810412 °
				-121.389115 °	-121.389115 °
DWR ID	DWR_RD2089_01_s_2012_940				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Arundo has been trimmed back from the crown but still remains as an obstruction to the slope and obstructs visibility, needs to be removed.					

Photo 1 of 1 : SP_2019_RD2089_316_940_20190313_00039.jpg



The LMA is actively trying to remove the vegetation on the landside levee slope and toe.

* 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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Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.26	Rating **	M	Issue No.	13
LM End	0.27	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.810300 °	37.810300 °
				-121.389300 °	-121.389500 °
DWR ID	DWR_RD2089_01_f _ 2017_13				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:513					
Site Designation:LMA-419					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:8/14/2017					
Notes: Small erosion at toe.					

LM Start	0.26	Rating **	M	Issue No.	13 (cont)
LM End	0.27	Issue Type +	Ma	Location *	

A photograph showing a riverbank in the foreground with tall, dry, golden-brown grasses and some green shrubs. The river flows in the background, with a rocky shoreline visible on the opposite bank. The water is a murky green color.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.30	Rating **	U	Issue No.	23
LM End	0.32	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.810138 °	37.810043 °
				-121.390020 °	-121.390343 °
DWR ID	DWR_RD2089_01_f_2018_23				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Berryvines and wild roses on landward shoulder and slope blocking view.					

Photo 1 of 1 : SP_2019_RD2089_316_23_20190313_00024.jpg



Looking at dense berryvines and wild roses on landward shoulder and slope. (Fall 2018)

LM Start	0.32	Rating **	M	Issue No.	26
LM End	0.32	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.810030 °	37.810030 °
				-121.390476 °	-121.390476 °
DWR ID	DWR_RD2089_01_s_2019_26				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					

No Photos

LM Start	0.33	Rating **	U	Issue No.	19
LM End	0.33	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.810002 °	37.810002 °
				-121.390674 °	-121.390674 °
DWR ID	DWR_RD2089_01_s_2012_19				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Arundo needs to be maintained so that it does not obstruct visibility and access to the landside toe.					

Photo 1 of 2 : SP_2019_RD2089_316_19_20190313_00018.jpg



View of the arundo back on the landside levee slope. Fall 2016

* 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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.33	Rating **	U	Issue No.	19 (cont)	
LM End	0.33	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			37.810002 °		37.810002 °
				-121.390674 °		-121.390674 °
DWR ID	DWR_RD2089_01_s_2012_19					
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment						
Arundo needs to be maintained so that it does not obstruct visibility and access to the landside toe.						

Photo 2 of 2 : SP_2019_RD2089_316_19_20190313_00019.jpg



View of trimmed arundo. Spring 2016

LM Start	0.41	Rating **	U	Issue No.	28
LM End	0.46	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.809593 °	37.809507 °
				-121.391963 °	-121.392907 °
DWR ID	DWR_RD2089_01_s_2012_28				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Vegetation is too thick to allow access and visibility. Some thick patches of shrubs remain and continue to block visibility and access.					

Photo 1 of 2 : SP_2019_RD2089_316_28_20190313_00027.jpg

Photo shows thick dead vegetation and continuation of trees in area.
5/24/2011

LM Start	0.41	Rating **	U	Issue No.	28 (cont)
LM End	0.46	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2019_RD2089_316_28_20190313_00028.jpg



Looking at dense veg on landward slope. (Fall 2018)

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.46	Rating **	M	Issue No.	941
LM End	0.46	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.809501 °	37.809501 °
				-121.392798 °	-121.392798 °
DWR ID	23042				
Comment Code					
Inspector Comment					
FS_ID:21635 DS_ID:23042 EP_NO: 5641 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - damaged siphon breaker.- most of the pipe on landside exposed on levee slope. FIELD_STRUCT_DESC: 20-inch steel irrigation discharge pipe and electrical conduit through the levee, 5.8 feet below the crown. Pump on a pile structure in the stream. Siphon breaker on the landside (LS) slope. (Plans to replace a rusted out irrigation discharge pipe through the levee authorized under Permit No. 5641, 1967 - Theodore Stark). [Additional Reference(s): DWR Levee Log, 1991. USACE San Joaquin O&M Manual 8, 1968, (HLM 0.46), 21-inch pipe referenced]. FS Date: 9/12/2013					

LM Start	0.46	Rating **	M	Issue No.	941 (cont)
LM End	0.46	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_21635_36742.jpg



WS view: walkway to pump platform and pump on steel piling structure in the channel.

Photo 2 of 3 : UCIP_SP_2019_21635_36741.jpg



WS view: steel walkway, electric control box, and pump on steel piling structure in the channel.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.67	Rating **	A/W	Issue No.	5
LM End	0.67	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.809780 °	37.809780 °
				-121.396230 °	-121.396230 °
DWR ID	RD2089U01RM29.61				
Comment Code					
Inspector Comment					
09/13/2017: No significant change observed.					
07/25/2016: No significant change observed.					
06/25/2015: No significant change observed.					
07/02/2014: No significant change observed.					
08/13/2013: No significant change observed.					
08/07/2012: The site has been visited by boat survey. No significant change observed					
08/23/2011: The 5-foot vertical scarp shows no significant change from the last year inspection. No new erosion activities observed. Dense white willow trees on site.					
09/07/2010: It was difficult to view the erosion due to the thick Willow thickets and other vegetation at the water line. At the time of the inspection, there were no signs of repair on site. As noted during the last survey, there is a 5-foot vertical scarp along the lower slope that may be subjected to high flow velocities.					
08/05/2010: Recommended for repair, per CLRO; "Erosion of this site may be subjective to rapid rates of erosion."					
09/28/2009: No major change observed; 5-foot vertical scarp is immediately downstream of where berm has tapered; site is recommended as local maintenance issue, per CLRO CES Evaluation 2008 Report; Site # is the same as RM29.6, LM0.60; previously rated "U".					
11/05/2008: No change observed; rodent holes on lower slope; wide levee crown. [2017 Site ID:RD2089U01RM29.61]					

LM Start	0.67	Rating **	A/W	Issue No.	5 (cont)
LM End	0.67	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : SP_2019_RD2089_316_5_20190313_00008.jpg



Front view of the site. The scarp erosion is at the levee slope but is not visible due to the dense vegetation at the site.

Photo 2 of 2 : SP_2019_RD2089_316_5_20190313_00009.jpg



Front view of the site. Note the very dense white willow thickets on site.

* 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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Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.67	Rating **	A/W	Issue No.	20
LM End	0.68	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.809700 °	37.809700 °
				-121.396300 °	-121.396400 °
DWR ID	DWR_RD2089_01_f _ 2017_20				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:512					
Site Designation:LMA-418					
Repair Type: Erosion					
Rating:Serious					
Field Date:8/14/2017					
Notes: deep erosion more than half way up slope.					

LM Start	0.67	Rating **	A/W	Issue No.	20 (cont)
LM End	0.68	Issue Type +	Ma	Location *	

A photograph showing a wide river bend. In the foreground, there is a dense field of tall, dry, golden-brown grass. To the right, some green weeds are visible. The river flows from the left towards the background. The opposite bank is lined with thick green bushes and trees. The sky is overcast and grey.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.67	Rating **	A/W	Issue No.	20 (cont)	
LM End	0.68	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	2017 Storm Damage			37.809700 °		37.809700 °
				-121.396300 °		-121.396400 °
DWR ID	DWR_RD2089_01_f_2017_20					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.						
Site ID No:512						
Site Designation:LMA-418						
Repair Type: Erosion						
Rating:Serious						
Field Date:8/14/2017						
Notes: deep erosion more than half way up slope.						

Photo 3 of 3 : LEVAL_SP_2019_512_4464.jpg



LM Start	0.80	Rating **	M	Issue No.	22
LM End	0.80	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.808466 °	37.808466 °
				-121.397847 °	-121.397847 °
DWR ID	DWR_RD2089_01_f_2016_22				
Comment Code					
S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_316_22_20190313_00023.jpg



View of the footpath on the landside levee slope.

* 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 - Spring 2019

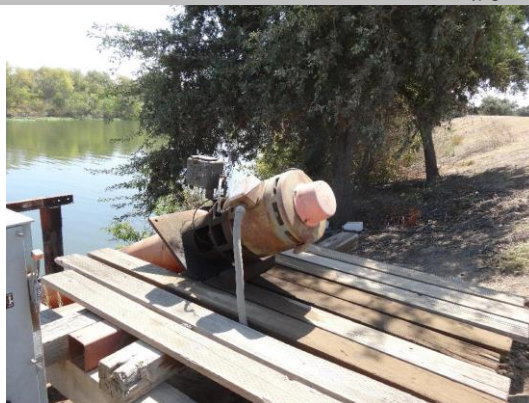
Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.80	Rating **	M	Issue No.	942
LM End	0.80	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.808387 °	37.808387 °
				-121.397843 °	-121.397843 °
DWR ID	23043				
Comment Code					
Inspector Comment					
FS_ID:21587 DS_ID:23043 EP_NO: 3385 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - powerline on landside.- electric control box on waterside.- waterside slope erosion under pump platform. FIELD_STRUCT_DESC: 16-inch irrigation discharge pipe of an unknown material through the levee, 5.5 feet below the crown. Two cutoff walls. Slant pump in a pump house on the waterside (WS) slope. Siphon breaker on the landside (LS) slope. (Plans for installation of a pumping plant on the riverbank and a pipe that crosses the levee authorized under Permit No. 3385, 1960 - Eleanor M. Lawrence). [Additional Reference(s): DWR Levee Log, 1991. USACE San Joaquin O&M Manual 8, 1968, (HLM 0.81)]. FS Date: 9/12/2013					

LM Start	0.80	Rating **	M	Issue No.	942 (cont)
LM End	0.80	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_21587_36635.jpg



WS view: slant pump on wooden platform. Oil leaks from the pump.

Photo 2 of 3 : UCIP_SP_2019_21587_36634.jpg



WS view: soil erosion under pump platform. Needs mitigation measures to stop erosion.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.80	Rating **	M	Issue No.	942 (cont)	
LM End	0.80	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			37.808387 °		37.808387 °
				-121.397843 °		-121.397843 °
DWR ID	23043					
Comment Code						
Inspector Comment						
FS_ID:21587 DS_ID:23043 EP_NO: 3385 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - powerline on landside.- electric control box on waterside.- waterside slope erosion under pump platform. FIELD_STRUCT_DESC: 16-inch irrigation discharge pipe of an unknown material through the levee, 5.5 feet below the crown. Two cutoff walls. Slant pump in a pump house on the waterside (WS) slope. Siphon breaker on the landside (LS) slope. (Plans for installation of a pumping plant on the riverbank and a pipe that crosses the levee authorized under Permit No. 3385, 1960 - Eleanor M. Lawrence). [Additional Reference(s): DWR Levee Log, 1991. USACE San Joaquin O&M Manual 8, 1968, (HLM 0.81)]. FS Date: 9/12/2013						

Photo 3 of 3 : UCIP_SP_2019_21587_36633.jpg



LS view: exposed pipe with siphon breaker on levee slope. Concrete standpipe on levee toe.

LM Start	0.81	Rating **	U	Issue No.	17
LM End	0.94	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.808319 °	37.806453 °
				-121.397881 °	-121.397755 °
DWR ID	DWR_RD2089_01_f _ 2014_17				
Comment Code					
AT : Agricultural tilling					
Inspector Comment					
The landside levee toe is cut due to farming.					

Photo 1 of 2 : SP_2019_RD2089_316_17_20190313_00015.jpg



View of the vertical cut along the landside levee toe.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.81	Rating **	U	Issue No.	17 (cont)	
LM End	0.94	Issue Type +	En	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			37.808319 °		37.806453 °
				-121.397881 °		-121.397755 °
DWR ID	DWR_RD2089_01_f_2014_17					
Comment Code						
AT : Agricultural tilling						
Inspector Comment						
The landside levee toe is cut due to farming.						

Photo 2 of 2 : SP_2019_RD2089_316_17_20190313_00016.jpg



View of vertical cut along the landward toe. (Fall 2018)

LM Start	0.83	Rating **	U	Issue No.	27
LM End	1.51	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.807991 °	37.806638 °
				-121.397847 °	-121.407833 °
DWR ID	DWR_RD2089_01_s_2019_27				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Vegetation on landside toe needs to be maintained to allow access and visibility.					

Photo 1 of 1 : SP_2019_RD2089_316_27_20190422_00057.jpg



View of vegetation on landside slope. (spring 2019)

LM Start	0.94	Rating **	U	Issue No.	33
LM End	0.94	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.806397 °	37.806397 °
				-121.397758 °	-121.397758 °
DWR ID	DWR_RD2089_01_s_2012_33				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Arundo on waterside impedes visibility and access to waterside slope.					

Photo 1 of 2 : SP_2019_RD2089_316_33_20190313_00032.jpg



Re-establishing of Arundo on waterward slope. (Fall 2018)

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.94	Rating **	U	Issue No.	33 (cont)	
LM End	0.94	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			37.806397 °		37.806397 °
				-121.397758 °		-121.397758 °
DWR ID	DWR_RD2089_01_s_2012_33					
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment						
Arundo on waterside impedes visibility and access to waterside slope.						

Photo 2 of 2 : SP_2019_RD2089_316_33_20190313_00033.jpg



View of when Arundo was trimmed back. Spring 2016

LM Start	1.16	Rating **	A/W	Issue No.	30
LM End	1.18	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.805600 °	37.805600 °
				-121.401700 °	-121.401900 °
DWR ID	DWR_RD2089_01_f _ 2017_30				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:511					
Site Designation:LMA-417					
Repair Type: Erosion					
Rating:Critical					
Field Date:8/16/2017					
Notes: Narrow levee with over steep slope					

Photo 1 of 3 : LEVAL_SP_2019_511_4301.jpg



* 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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Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.16	Rating **	A/W	Issue No.	30 (cont)
LM End	1.18	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.805600 °	37.805600 °
				-121.401700 °	-121.401900 °
DWR ID	DWR_RD2089_01_f _ 2017_30				
Comment Code					
Inspector Comment					
<p>Levee Evaluation Comments</p> <p>Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.</p> <p>Site ID No:511</p> <p>Site Designation:LMA-417</p> <p>Repair Type: Erosion</p> <p>Rating:Critical</p> <p>Field Date:8/16/2017</p> <p>Notes: Narrow levee with over steep slope</p>					

LM Start	1.16	Rating **	A/W	Issue No.	30 (cont)
LM End	1.18	Issue Type +	Ma	Location *	WS

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.17	Rating **	A/W	Issue No.	3
LM End	1.17	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.805523 °	37.805523 °
				-121.401718 °	-121.401718 °
DWR ID	RD2089U01RM29.1				
Comment Code					
Inspector Comment					
09/13/2017: The erosion is at the upstream of a small tree, inside of a slight river bend. [2017 Site ID:RD2089U01RM29.1]					

LM Start	1.17	Rating **	A/W	Issue No.	3 (cont)
LM End	1.17	Issue Type +	Ma	Location *	WS

Photo 1 of 3 : SP_2019_RD2089_316_3_20190313_00005.jpg



Front view of the erosion. Note the trees next to the erosion site.

Photo 2 of 3 : SP_2019_RD2089_316_3_20190313_00006.jpg



Front view of the erosion.

Photo 3 of 3 : SP_2019_RD2089_316_3_20190313_00007.jpg



Front view of the erosion.

LM Start	1.17	Rating **	A/W	Issue No.	3 (cont)
LM End	1.17	Issue Type +	Ma	Location *	WS

*** 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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.19	Rating **	M	Issue No.	25
LM End	1.19	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.805663 °	37.805663 °
				-121.402151 °	-121.402151 °
DWR ID	DWR_RD2089_01_s_2016_25				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Arrundo was trimmed back but may creep up the waterside levee slope if not maintained.					

Photo 1 of 1 : SP_2019_RD2089_316_25_20190313_00026.jpg



View of the Arrundo on the waterside slope obstructing visibility. LMA is actively trying to remove the wild growth.

LM Start	1.22	Rating **	M	Issue No.	43
LM End	1.22	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.805735 °	37.805735 °
				-121.402614 °	-121.402614 °
DWR ID	DWR_RD2089_01_s_2012_43				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					
Depression needs to be filled.					

Photo 1 of 1 : SP_2019_RD2089_316_43_20190313_00034.jpg



View of depression in roadway. 11/10/2011

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.23	Rating **	M	Issue No.	2
LM End	1.24	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.805580 °	37.805580 °
				-121.403010 °	-121.403010 °
DWR ID	RD2089U01RM29.04				
Comment Code					
Inspector Comment					
09/13/2017: No significant change observed. More vegetation observed at the site.					
09/16/2016: The river was not navigable near the site due to the dense water grass, so the site was visited by land survey. No significant change observed.					
06/25/2015: No significant change observed.					
07/02/2014: No significant change observed.					
08/13/2013: The erosion is around a tree at the levee toe. Dense vegetation is visible. [2017 Site ID:RD2089U01RM29.04]					

LM Start	1.23	Rating **	M	Issue No.	2 (cont)
LM End	1.24	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : SP_2019_RD2089_316_2_20190313_00003.jpg



Front view of the erosion.

Photo 2 of 2 : SP_2019_RD2089_316_2_20190313_00004.jpg



Close view of the erosion.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.23	Rating **	M	Issue No.	44
LM End	1.23	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.805801 °	37.805801 °
				-121.402913 °	-121.402913 °
DWR ID	DWR_RD2089_01_s_2012_44				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					
Depression in roadway needs to be filled.					

Photo 1 of 1 : SP_2019_RD2089_316_44_20190313_00035.jpg



View of roadway depression. 11/10/2011

LM Start	1.34	Rating **	M	Issue No.	45
LM End	1.34	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.806128 °	37.806128 °
				-121.404890 °	-121.404890 °
DWR ID	DWR_RD2089_01_s_2012_45				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					
Depression needs to be filled.					

Photo 1 of 1 : SP_2019_RD2089_316_45_20190313_00036.jpg



View of roadway depression. 11/10/2011

LM Start	1.40	Rating **	M	Issue No.	47
LM End	1.40	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.806268 °	37.806268 °
				-121.405874 °	-121.405874 °
DWR ID	DWR_RD2089_01_s_2012_47				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
No rodents visible, but active burrows are present.					

Photo 1 of 1 : SP_2019_RD2089_316_47_20190313_00037.jpg



View of active rodent burrow on landside slope. 11/10/2011

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.41	Rating **	M	Issue No.	943	
LM End	1.41	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.806323	°	37.806323
				-121.406149	°	-121.406149
DWR ID	24667					
Comment Code						
Inspector Comment						
FS_ID:53379 DS_ID:24667 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/12/2018 Same as last inspection. Down grading to Non-Urgent due to abandonment and no visual threat to pipe or levee integrity (D. Sanoski - DWR UCIP).11/15/2016 Same as last inspection. (K. Fazel - UCIP)09/12/2013:- if abandoned, it needs proper abandonment. Pipe damaged and open on both ends. (P. Amatya - DWR) FIELD_STRUCT_DESC: *ABANDONED* 6-inch polyvinyl chloride (PVC) irrigation discharge pipe through the levee, 2 feet below the crown. Pipe was installed due to pump failure, but never removed. Field study discovered pipe. FS Date: 10/12/2018 5:16:00 PM						

LM Start	1.41	Rating **	M	Issue No.	943 (cont)
LM End	1.41	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_53379_36611.jpg



WS view: 6-inch pvc pipe on levee slope. Pipe end open and damaged.

Photo 2 of 3 : UCIP_SP_2019_53379_36610.jpg



WS view: inside view of pvc pipe. Sediments found inside the pipe.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.41	Rating **	M	Issue No.	943 (cont)	
LM End	1.41	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.806323 °	37.806323 °	
				-121.406149 °	-121.406149 °	
DWR ID	24667					
Comment Code						
Inspector Comment						
FS_ID:53379 DS_ID:24667 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/12/2018 Same as last inspection. Down grading to Non-Urgent due to abandonment and no visual threat to pipe or levee integrity (D. Sanoski - DWR UCIP).11/15/2016 Same as last inspection. (K. Fazel - UCIP)09/12/2013:- if abandoned, it needs proper abandonment. Pipe damaged and open on both ends. (P. Amatya - DWR) FIELD_STRUCT_DESC: *ABANDONED* 6-inch polyvinyl chloride (PVC) irrigation discharge pipe through the levee, 2 feet below the crown. Pipe was installed due to pump failure, but never removed. Field study discovered pipe. FS Date: 10/12/2018 5:16:00 PM						

Photo 3 of 3 : UCIP_SP_2019_53379_36609.jpg



LS view: 6-inch pvc pipe on levee slope. Pipe end open.

LM Start	1.41	Rating **	M	Issue No.	944
LM End	1.41	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.806323 °	37.806323 °
				-121.406155 °	-121.406155 °
DWR ID	23045				
Comment Code					
Inspector Comment					
FS_ID:21585 DS_ID:23045 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - siphon breaker needs repair. FIELD_STRUCT_DESC: 10-inch steel drainage discharge pipe through the levee, 2.4 feet below the crown. Pump in a drainage ditch on the landside (LS). Siphon breaker on the waterside (WS) shoulder. [Additional Reference(s): DWR Levee Log, 1991]. FS Date: 9/12/2013					

Photo 1 of 3 : UCIP_SP_2019_21585_36624.jpg



WS view: exposed steel pipe on levee slope. A pvc pipe on left.

* 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
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.41	Rating **	M	Issue No.	944 (cont)	
LM End	1.41	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			37.806323 °	37.806323 °	
				-121.406155 °	-121.406155 °	
DWR ID	23045					
Comment Code						
Inspector Comment						
FS_ID:21585 DS_ID:23045 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - siphon breaker needs repair. FIELD_STRUCT_DESC: 10-inch steel drainage discharge pipe through the levee, 2.4 feet below the crown. Pump in a drainage ditch on the landside (LS). Siphon breaker on the waterside (WS) shoulder. [Additional Reference(s): DWR Levee Log, 1991]. FS Date: 9/12/2013						

LM Start	1.41	Rating **	M	Issue No.	944 (cont)
LM End	1.41	Issue Type +	Ma	Location *	

Photo 2 of 3 : UCIP_SP_2019_21585_36623.jpg



WS view: exposed steel pipe with siphon breaker. Looks siphon breaker needs repair.

Photo 3 of 3 : UCIP_SP_2019_21585_36622.jpg



LS view: exposed steel pipe on levee slope.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.44	Rating **	M	Issue No.	49
LM End	1.44	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.806383 °	37.806383 °
				-121.406599 °	-121.406599 °
DWR ID	DWR_RD2089_01_s_2012_49				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Deep burrow on waterside needs to be filled.					

Photo 1 of 1 : SP_2019_RD2089_316_49_20190313_00038.jpg



View of deep burrow on waterside. 11/10/2011

LM Start	1.48	Rating **	M	Issue No.	945
LM End	1.48	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.806520 °	37.806520 °
				-121.407392 °	-121.407392 °
DWR ID	23046				
Comment Code					
Inspector Comment					
FS_ID:53182 DS_ID:23046 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/12/2018 Same as last inspection; downgrading to Non-Urgent due to no visual pipe or levee threat (D. Sanoski - DWR UCIP).11/15/2016 Pipe found on WS only. Same as last inspection. (K. Fazel - UCIP)06/25/2015 Crossing appears abandoned; if so, should be done so properly. Pipe open on WS. Holes and cracks visible on pipe. (K. Fazel - UCIP) FIELD_STRUCT_DESC: *ABANDONED* 12-inch reinforced concrete pipe of an unknown purpose possibly through the levee, approximately 8 feet below the crown. Smaller steel pipe sleeved through the 12-inch pipe with annular space grouted. Pipe does not cross channel and may not cross levee. May be related to the gas line crossing with DS ID 25121. Discovered from boat on 2015 DWR Erosion Survey. FS Date: 10/12/2018 5:22:43 PM					

Photo 1 of 3 : UCIP_SP_2019_53182_74506.jpg



View up WS slope from water. Pipe does not cross channel.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Old River	Right	1.51	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.48	Rating **	M	Issue No.	945 (cont)	
LM End	1.48	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.806520 °	37.806520 °	
				-121.407392 °	-121.407392 °	
DWR ID	23046					
Comment Code						
Inspector Comment						
FS_ID:53182 DS_ID:23046 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/12/2018 Same as last inspection; downgrading to Non-Urgent due to no visual pipe or levee threat (D. Sanoski - DWR UCIP).11/15/2016 Pipe found on WS only. Same as last inspection. (K. Fazel - UCIP)06/25/2015 Crossing appears abandoned; if so, should be done so properly. Pipe open on WS. Holes and cracks visible on pipe. (K. Fazel - UCIP) FIELD_STRUCT_DESC: *ABANDONED* 12-inch reinforced concrete pipe of an unknown purpose possibly through the levee, approximately 8 feet below the crown. Smaller steel pipe sleeved through the 12-inch pipe with annular space grouted. Pipe does not cross channel and may not cross levee. May be related to the gas line crossing with DS ID 25121. Discovered from boat on 2015 DWR Erosion Survey. FS Date: 10/12/2018 5:22:43 PM						

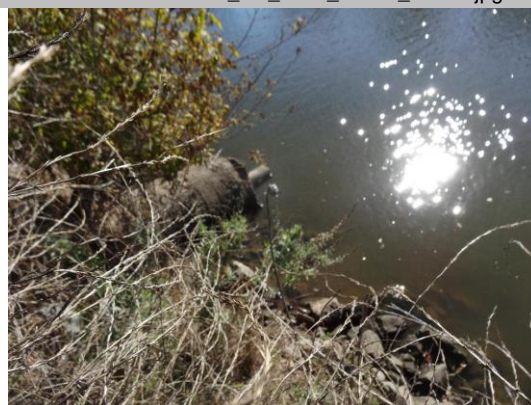
LM Start	1.48	Rating **	M	Issue No.	945 (cont)
LM End	1.48	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2019_53182_74508.jpg



Gasline marker (for crossing with DS ID 25121) appr. 100 ft west of crossing.

Photo 3 of 3 : UCIP_SP_2019_53182_76207.jpg



WS view of pipe

* 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**

Unit Cover Sheet

Spring 2019 Levee Inspection Results

Reclamation District No. 2089 Stark

Waterway			Bank	Unit Miles
Unit No. 02 Salmon Slough			Right	1.35
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/4/2019 - 4/4/2019			
DWR Inspector	Alberto De Leon			
Accompanied By	Wade Wylie DWR			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.00	Rating **	U	Issue No.	20
LM End	0.11	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.806636 °	37.807958 °
				-121.407840 °	-121.409065 °
DWR ID	DWR_RD2089_02_s_2016_20				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

Photo 1 of 3 : SP_2019_RD2089_317_20_20190313_00022.jpg



View of the vegetation on the landside levee slope.

LM Start	0.00	Rating **	U	Issue No.	20 (cont)
LM End	0.11	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : SP_2019_RD2089_317_20_20190313_00023.jpg



View of dense veg on landward slope. (Fall 2018)

LM Start	0.00	Rating **	U	Issue No.	20 (cont)
LM End	0.11	Issue Type +	Ma	Location *	LS

Photo 3 of 3 : SP_2019_RD2089_317_20_20190422_00069.jpg



Typical view of vegetation on landside slope. (Spring 2019)

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.00	Rating **	U	Issue No.	58
LM End	1.34	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.806636 °	37.819608 °
				-121.407840 °	-121.419609 °
DWR ID	DWR_RD2089_02_s_2017_58				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Trim back the shrub to allow access and visibility.					

Photo 1 of 1 : SP_2019_RD2089_317_58_20190422_00070.jpg



Typical view of vegetation on waterside slope. (Spring 2019)

LM Start	0.07	Rating **	U	Issue No.	4
LM End	1.34	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.807375 °	37.819608 °
				-121.408605 °	-121.419609 °
DWR ID	DWR_RD2089_02_s_2012_4				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					
Thick brush may include some elderberries.					

No Photos

LM Start	0.16	Rating **	U	Issue No.	48
LM End	0.16	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.808583 °	37.808583 °
				-121.409432 °	-121.409432 °
DWR ID	DWR_RD2089_02_f_2013_48				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_48_20190313_00049.jpg



View of the rodent burrow on the landside levee slope.

* 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
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.20	Rating **	M	Issue No.	46
LM End	0.21	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.809100 °	37.809200 °
				-121.409800 °	-121.409900 °
DWR ID	DWR_RD2089_02_f _ 2017_46				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:509					
Site Designation:LMA-415					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:8/16/2017					
Notes: Displaced riprap at toe.					

Photo 1 of 3 : LEVAL_SP_2019_509_4314.jpg



LM Start	0.20	Rating **	M	Issue No.	46 (cont)
LM End	0.21	Issue Type +	Ma	Location *	

Photo 2 of 3 : LEVAL_SP_2019_509_4315.jpg



* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.20	Rating **	M	Issue No.	46 (cont)	
LM End	0.21	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.809100 °	37.809200 °	
				-121.409800 °	-121.409900 °	
DWR ID	DWR_RD2089_02_f _ 2017_46					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.						
Site ID No:509						
Site Designation:LMA-415						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:8/16/2017						
Notes: Displaced riprap at toe.						

Photo 3 of 3 : LEVAL_SP_2019_509_4317.jpg



LM Start	0.21	Rating **	M	Issue No.	49
LM End	0.21	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.809148 °	37.809148 °
				-121.409897 °	-121.409897 °
DWR ID	DWR_RD2089_02_s_2018_49				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_49_20190313_00050.jpg



View of the multiple rodent burrows on the landside levee hinge and slope.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.26	Rating **	M	Issue No.	24
LM End	0.26	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.809717 °	37.809717 °
				-121.410511 °	-121.410511 °
DWR ID	DWR_RD2089_02_s_2012_24				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					
A ground squirrel was sighted and there is active burrowing in the area.					

Photo 1 of 1 : SP_2019_RD2089_317_24_20190313_00025.jpg



View of active burrows, ground squirrel sighted in area. 05/24/2011

LM Start	0.28	Rating **	U	Issue No.	52
LM End	0.30	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.809899 °	37.809997 °
				-121.410888 °	-121.411298 °
DWR ID	DWR_RD2089_02_f_2013_52				
Comment Code					
PR : Prunings					
Inspector Comment					
Remove prunings and other debris from the levee toe.					

Photo 1 of 1 : SP_2019_RD2089_317_52_20190313_00055.jpg



View of the tree branches on the landside levee toe obstructing access.

LM Start	0.28	Rating **	U	Issue No.	51
LM End	0.28	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.809899 °	37.809899 °
				-121.410889 °	-121.410889 °
DWR ID	DWR_RD2089_02_f_2013_51				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_51_20190313_00054.jpg



View of the rodent burrow on the landside levee toe.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.30	Rating **	U	Issue No.	53
LM End	0.31	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.809977 °	37.810022 °
				-121.411189 °	-121.411387 °
DWR ID	DWR_RD2089_02_f_2013_53				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					
Exterminating rodents and grouting the burrows is recommended.					

Photo 1 of 3 : SP_2019_RD2089_317_53_20190313_00056.jpg



View of the multiple rodent burrows on the landside levee slope.

LM Start	0.30	Rating **	U	Issue No.	53 (cont)
LM End	0.31	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : SP_2019_RD2089_317_53_20190313_00057.jpg



View of the rodent burrow on the landside levee slope.

LM Start	0.30	Rating **	U	Issue No.	53 (cont)
LM End	0.31	Issue Type +	Ma	Location *	LS

Photo 3 of 3 : SP_2019_RD2089_317_53_20190313_00058.jpg



Another view of the multiple rodent burrows on the landside levee slope.

*** 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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.32	Rating **	A/W	Issue No.	47	
LM End	0.57	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			37.810020 °	37.811810 °	
				-121.411550 °	-121.415390 °	
DWR ID	DWR_RD2089_02_f_2017_47					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:109						
Site Designation:335-103						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:6/7/2017						
Notes: vegetation too dense for evaluation						

LM Start	0.32	Rating **	A/W	Issue No.	47 (cont)
LM End	0.57	Issue Type +	Ma	Location *	

Photo 1 of 3 : LEVAL_SP_2019_109_1297.jpg



Photo 2 of 3 : LEVAL_SP_2019_109_1298.jpg



* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.32	Rating **	A/W	Issue No.	47 (cont)	
LM End	0.57	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	2017 Storm Damage			37.810020 °	37.811810 °	
				-121.411550 °	-121.415390 °	
DWR ID	DWR_RD2089_02_f_2017_47					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:109						
Site Designation:335-103						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:6/7/2017						
Notes: vegetation too dense for evaluation						

Photo 3 of 3 : LEVAL_SP_2019_109_1300.jpg



LM Start	0.34	Rating **	M	Issue No.	55
LM End	0.34	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.810052 °	37.810052 °
				-121.411966 °	-121.411966 °
DWR ID	DWR_RD2089_02_s_2017_55				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_55_20190313_00060.jpg



View of the overgrown tree on the levee slope.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.35	Rating **	M	Issue No.	2
LM End	0.35	Issue Type +	En	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.810106°	37.810106°
				-121.412133°	-121.412133°
DWR ID	DWR_RD2089_02_s_2012_2				
Comment Code					
FE : Fence					
Inspector Comment					
There are gates across the levee.					

Photo 1 of 1 : SP_2019_RD2089_317_2_20190313_00004.jpg



View of gate across levee crown.

LM Start	0.36	Rating **	M	Issue No.	26
LM End	0.36	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.810125 °	37.810125 °
				-121.412317 °	-121.412317 °
DWR ID	DWR_RD2089_02_s_2012_26				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Active burrow needs to be repaired.					

Photo 1 of 1 : SP_2019_RD2089_317_26_20190313_00026.jpg



View of active rodent burrow. 05/24/2011

LM Start	0.39	Rating **	U	Issue No.	7
LM End	0.39	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.810140 °	37.810140 °
				-121.412906 °	-121.412906 °
DWR ID	DWR_RD2089_02_f_2018_7				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					
There is a arge depression on the levee crown.					

Photo 1 of 1 : SP_2019_RD2089_317_7_20190313_00007.jpg



View of depression greater than six inches on levee crown. (Fall 2018)

*** 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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.39	Rating **	A/W	Issue No.	50
LM End	0.41	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.810150 °	37.810270 °
				-121.412930 °	-121.413240 °
DWR ID	DWR_RD2089_02_f _ 2017_50				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:508					
Site Designation:LMA-414					
Repair Type: Erosion					
Rating:Serious					
Field Date:8/16/2017					
Notes: Large erosion around tree with a 12' vertical cut.					

Photo 1 of 3 : LEVAL_SP_2019_508_4321.jpg



LM Start	0.39	Rating **	A/W	Issue No.	50 (cont)
LM End	0.41	Issue Type +	Ma	Location *	

Photo 2 of 3 : LEVAL_SP_2019_508_4323.jpg



* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.39	Rating **	A/W	Issue No.	50 (cont)
LM End	0.41	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.810150 °	37.810270 °
				-121.412930 °	-121.413240 °
DWR ID	DWR_RD2089_02_f _ 2017_50				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:508					
Site Designation:LMA-414					
Repair Type: Erosion					
Rating:Serious					
Field Date:8/16/2017					
Notes: Large erosion around tree with a 12' vertical cut.					

Photo 3 of 3 : LEVAL_SP_2019_508_4325.jpg



* 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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Reclamation District No. 2089 Stark

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.40	Rating **	A/W	Issue No.	1 (cont)
LM End	0.41	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.809960 °	37.809960 °
				-121.413200 °	-121.413200 °
DWR ID	RD2089U02RM28.35				
Comment Code					
Inspector Comment					
09/13/2017: No significant change observed.					
09/26/2016: The erosion site was visited by land survey instead of water surface survey due to the dense water grass in the river this year. No significant change observed.					
06/25/2015: No significant change observed.					
07/02/2014: No significant change observed.					
08/13/2013: No significant change observed.					
08/07/2012: The site has been visited by boat survey. No significant change observed.					
08/23/2011: No significant change observed on site.					
09/07/2010: Site consists of a jutting rip rap that has created an eddy, scouring the levee slope. Most sections of the toe and lower slope are lined with rip rap. However, the rip rap is sloughing on the mid slope and at the toe, exposing the underlying soils and tree roots. The remaining revetment is no longer adequately protecting the slope. There are 3 Sycamore trees at the toe with exposed tree roots.					
08/05/2010: Recommended for repair, per CLRO.					
09/28/2009: Pocket erosion on lower slope just above the toe rip rap; protruding rip rap upstream is creating an eddy, scouring the levee slope; Site # is the same as RM28.40,LM0.30; previously rated "U"; pictures will be made available during the next survey.					
11/05/2008: Cut into levee profile; riprap slide; rodent holes; pictures do not match GPS and current condition. [2017 Site ID:RD2089U02RM28.35]					

Photo 3 of 3 : SP_2019_RD2089_317_1_20190313_00003.jpg



Close view of the erosion.

LM Start	0.44	Rating **	M	Issue No.	27
LM End	0.44	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.810490 °	37.810490 °
				-121.413638 °	-121.413638 °
DWR ID	DWR_RD2089_02_s_2012_27				
Comment Code					
BU : Building					
Inspector Comment					
There is a portable toilet on the bank at the water's edge as well as other items.					

Photo 1 of 3 : SP_2019_RD2089_317_27_20190313_00027.jpg



View of portable toilet is in the shadows in the center of the photo at the water's edge. 05/24/2011

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.44	Rating **	M	Issue No.	27 (cont)	
LM End	0.44	Issue Type +	En	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			37.810490 °		37.810490 °
				-121.413638 °		-121.413638 °
DWR ID	DWR_RD2089_02_s_2012_27					
Comment Code						
BU : Building						
Inspector Comment						
There is a portable toilet on the bank at the water's edge as well as other items.						

Photo 2 of 3 : SP_2019_RD2089_317_27_20190313_00028.jpg



View of picnic table and other items on waterward berm. (Fall 2018)

LM Start	0.44	Rating **	M	Issue No.	27 (cont)
LM End	0.44	Issue Type +	En	Location *	WS

Photo 3 of 3 : SP_2019_RD2089_317_27_20190313_00029.jpg



Close-up view of portable toilet at water's edge. (Fall 2018)

LM Start	0.44	Rating **	M	Issue No.	34
LM End	0.44	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.810509 °	37.810509 °
				-121.413624 °	-121.413624 °
DWR ID	DWR_RD2089_02_s_2019_34				
Comment Code					
PR : Prunings					
Inspector Comment					

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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Reclamation District No. 2089 Stark

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.52	Rating **	U	Issue No.	14
LM End	0.52	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.811150 °	37.811150 °
				-121.414748 °	-121.414748 °
DWR ID	DWR_RD2089_02_s_2012_14				
Comment Code					
A2 : Repair the levee slope damaged by livestock and prevent large animal access.					
Inspector Comment					
Repair damage to slope caused by livestock.					

Photo 1 of 1 : SP_2019_RD2089_317_14_20190313_00016.jpg



View of the approximately 1' scarp that has been created by livestock travel. 11/10/2011

LM Start	0.54	Rating **	M	Issue No.	60
LM End	0.54	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.811369 °	37.811369 °
				-121.415050 °	-121.415050 °
DWR ID	23047				
Comment Code					
Inspector Comment					
FS_ID:21676 DS_ID:23047 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - air relief valve on waterside. Needs repair.- concrete standpipe on landside. FIELD_STRUCT_DESC: 14-inch irrigation discharge pipe of an unknown material through the levee, 8 feet below the crown. Pump on a pile structure in the stream. Timber walkway to the pump. Air relief valve on the waterside (WS) slope. Concrete distribution standpipe on the landside (LS) toe. [Additional Reference(s): DWR Levee Log, 1991. USACE San Joaquin O&M Manual 8, 1968, (HLM 0.55)]. FS Date: 9/12/2013					

Photo 1 of 3 : UCIP_SP_2019_21676_36861.jpg



WS view: pipe and pump on piling structure in water channel.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.54	Rating **	M	Issue No.	60 (cont)	
LM End	0.54	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			37.811369 °		37.811369 °
				-121.415050 °		-121.415050 °
DWR ID	23047					
Comment Code						
Inspector Comment						
FS_ID:21676 DS_ID:23047 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - air relief valve on waterside. Needs repair.- concrete standpipe on landside. FIELD_STRUCT_DESC: 14-inch irrigation discharge pipe of an unknown material through the levee, 8 feet below the crown. Pump on a pile structure in the stream. Timber walkway to the pump. Air relief valve on the waterside (WS) slope. Concrete distribution standpipe on the landside (LS) toe. [Additional Reference(s): DWR Levee Log, 1991. USACE San Joaquin O&M Manual 8, 1968, (HLM 0.55)]. FS Date: 9/12/2013						

LM Start	0.54	Rating **	M	Issue No.	60 (cont)
LM End	0.54	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2019_21676_36860.jpg



WS view: air relief valve on pipe. Pipe exposed in levee slope.

Photo 3 of 3 : UCIP_SP_2019_21676_36859.jpg



WS view: pipe (left) and steel walkway to pump on piling structure in the channel.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.54	Rating **	M	Issue No.	35
LM End	0.54	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.811382 °	37.811382 °
				-121.415054 °	-121.415054 °
DWR ID	DWR_RD2089_02_f_2015_35				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

Photo 1 of 4 : SP_2019_RD2089_317_35_20190313_00033.jpg



View of the levee crown depression looking upstream.

LM Start	0.54	Rating **	M	Issue No.	35 (cont)
LM End	0.54	Issue Type +	Ma	Location *	CR

Photo 2 of 4 : SP_2019_RD2089_317_35_20190313_00034.jpg



View of the levee crown depression looking downstream.

LM Start	0.54	Rating **	M	Issue No.	35 (cont)
LM End	0.54	Issue Type +	Ma	Location *	CR

Photo 3 of 4 : SP_2019_RD2089_317_35_20190313_00035.jpg



View of the levee crown depression looking to the landside.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.54	Rating **	M	Issue No.	35 (cont)	
LM End	0.54	Issue Type +	Ma	Location *	CR	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Crown Surface / Depressions / Rutting			37.811382 °		37.811382 °
				-121.415054 °		-121.415054 °
DWR ID	DWR_RD2089_02_f_2015_35					
Comment Code						
C2 : Repair depressions or ruts in the crown or slope.						
Inspector Comment						

Photo 4 of 4 : SP_2019_RD2089_317_35_20190313_00036.jpg



View of the levee crown depression looking to the waterside.

LM Start	0.60	Rating **	A/W	Issue No.	56
LM End	0.61	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.812000 °	37.812100 °
				-121.415700 °	-121.415900 °
DWR ID	DWR_RD2089_02_s_2018_56				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:507					
Site Designation:LMA-413					
Repair Type: Erosion					
Rating:Serious					
Field Date:8/16/2017					
Notes: Vertical cut on outside bend of river					

Photo 1 of 3 : LEVAL_SP_2019_507_4335.jpg



* 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

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.60	Rating **	A/W	Issue No.	56 (cont)
LM End	0.61	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.812000 °	37.812100 °
				-121.415700 °	-121.415900 °
DWR ID	DWR_RD2089_02_s _ 2018_56				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage.					
Site ID No:507					
Site Designation:LMA-413					
Repair Type: Erosion					
Rating:Serious					
Field Date:8/16/2017					
Notes: Vertical cut on outside bend of river					

LM Start	0.60	Rating **	A/W	Issue No.	56 (cont)
LM End	0.61	Issue Type +	Ma	Location *	

A white pickup truck is parked on a light-colored dirt road. To the left of the road is a dense thicket of tall, dry, brownish vegetation, possibly reeds or grasses. Beyond this vegetation, a calm body of water is visible under a clear blue sky. The background shows a distant shoreline with more trees and a small structure.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.76	Rating **	M	Issue No.	15
LM End	0.76	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.813934 °	37.813934 °
				-121.414320 °	-121.414320 °
DWR ID	DWR_RD2089_02_f_2014_15				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_15_20190313_00017.jpg



View of the scour from surface runoff on the landside levee slope.

LM Start	0.83	Rating **	M	Issue No.	21
LM End	0.83	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.814773 °	37.814773 °
				-121.414555 °	-121.414555 °
DWR ID	DWR_RD2089_02_s_2012_21				
Comment Code					
A2 : Repair the levee slope damaged by livestock and prevent large animal access.					
Inspector Comment					
Livestock have worn paths into levee slope.					

No Photos

LM Start	0.83	Rating **	M	Issue No.	38
LM End	0.83	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.814844 °	37.814844 °
				-121.414566 °	-121.414566 °
DWR ID	DWR_RD2089_02_s_2012_38				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
There are active burrows present.					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.84	Rating **	M	Issue No.	9
LM End	0.84	Issue Type +	En	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.814881 °	37.814881 °
				-121.414676 °	-121.414676 °
DWR ID	DWR_RD2089_02_s_2012_9				
Comment Code					
FE : Fence					
Inspector Comment					
There is a gate across levee crown.					

Photo 1 of 1 : SP_2019_RD2089_317_9_20190313_00010.jpg



View of the fence gate across levee crown.

LM Start	0.84	Rating **	M	Issue No.	25
LM End	0.84	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.814906 °	37.814906 °
				-121.414745 °	-121.414745 °
DWR ID	DWR_RD2089_02_s_2012_25				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					
Elderberry and blackberry on levee slope.					

No Photos

LM Start	0.84	Rating **	M	Issue No.	42
LM End	0.84	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.814931 °	37.814931 °
				-121.414756 °	-121.414756 °
DWR ID	DWR_RD2089_02_f_2016_42				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					
Ramp is encroaching into the levee slope. Add appropriate material to stabilize the slope.					

Photo 1 of 1 : SP_2019_RD2089_317_42_20190313_00042.jpg



View of the ramp on the landside levee slope.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.85	Rating **	U	Issue No.	40
LM End	0.90	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.814997 °	37.814970 °
				-121.414774 °	-121.415767 °
DWR ID	DWR_RD2089_02_s_2012_40				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					
Numerous burrows are on the landside slope adjacent to the hay storage area. Deep burrows are in the crown and landside ramp.					

LM Start	0.85	Rating **	U	Issue No.	40 (cont)
LM End	0.90	Issue Type +	Ma	Location *	LS

Photo 1 of 3 : SP_2019_RD2089_317_40_20190313_00038.jpg



View of deep vertical burrow in ramp on landside of levee. 05/24/2011

Photo 2 of 3 : SP_2019_RD2089_317_40_20190313_00039.jpg



View of deep vertical burrow in levee crown. 05/24/2011

LM Start	0.85	Rating **	U	Issue No.	40 (cont)
LM End	0.90	Issue Type +	Ma	Location *	LS

Photo 3 of 3 : SP_2019_RD2089_317_40_20190313_00040.jpg



View of the multiple rodent holes on the landside levee slope.

*** 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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.86	Rating **	U	Issue No.	36
LM End	1.34	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.815032 °	37.819556 °
				-121.414982 °	-121.419621 °
DWR ID	DWR_RD2089_02_s_2019_36				
Comment Code					
V9 : Keep the crown roadway free of vegetation.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_36_20190422_00071.jpg



View of vegetation on levee crown. (Spring 2019)

LM Start	0.91	Rating **	A/W	Issue No.	59	
LM End	0.93	Issue Type +	Ob	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	2017 Storm Damage			37.814890 °	37.814890 °	
				-121.415880 °	-121.416330 °	
DWR ID	DWR_RD2089_02_f_2017_59					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:						
Site ID No:110						
Site Designation:335-3						
Repair Type: Seepage						
Rating:						
Field Date:						
Notes:						

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
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	0.91	Rating **	M	Issue No.	22
LM End	0.91	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.814903 °	37.814903 °
				-121.415887 °	-121.415887 °
DWR ID	DWR_RD2089_02_s_2015_22				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	0.94	Rating **	M	Issue No.	41
LM End	0.94	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.814940 °	37.814940 °
				-121.416499 °	-121.416499 °
DWR ID	DWR_RD2089_02_s_2012_41				
Comment Code					
PI : Pipe					
Inspector Comment					
Debris/CMP are on levee slope and needs to be removed.					

Photo 1 of 1 : SP_2019_RD2089_317_41_20190313_00041.jpg

View of old CMP left on waterside levee slope, needs to be removed.
05/24/2011

LM Start	0.95	Rating **	U	Issue No.	5
LM End	0.95	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.814915 °	37.814915 °
				-121.416606 °	-121.416606 °
DWR ID	DWR_RD2089_02_s_2014_5				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_5_20190313_00005.jpg



View of the rodent holes on the landside levee slope.

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

Reclamation District No. 2089 Stark

LM Start	1.00	Rating **	U	Issue No.	12 (cont)
LM End	1.00	Issue Type +	Ma	Location *	CR



View of several large rodent holes on the levee crown.



View of several rodent burrows on landside levee hinge and crown.

LM Start	1.05	Rating **	N	Issue No.	29
LM End	1.05	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.815629 °	37.815629 °
				-121.418133 °	-121.418133 °
DWR ID	DWR_RD2089_02_s _ 2012_29				
Comment Code					
T5 : Tree stumps.					
Inspector Comment					
Location of a reported 14" diameter stump but could not verify as the area is overgrown with high weeds.					



View of tree stump left after vegetation and tree removal.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.08	Rating **	M	Issue No.	17
LM End	1.08	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.816025 °	37.816025 °
				-121.418544 °	-121.418544 °
DWR ID	DWR_RD2089_02_s_2012_17				
Comment Code					
DE : Debris					
Inspector Comment					
Water tanks disposed of on levee are obstructive.					

Photo 1 of 1 : SP_2019_RD2089_317_17_20190313_00019.jpg



View of water tanks disposed on waterside slope.

LM Start	1.12	Rating **	M	Issue No.	30
LM End	1.12	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.816514 °	37.816514 °
				-121.418948 °	-121.418948 °
DWR ID	DWR_RD2089_02_s_2012_30				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	1.18	Rating **	M	Issue No.	6
LM End	1.18	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.817271 °	37.817271 °
				-121.419380 °	-121.419380 °
DWR ID	DWR_RD2089_02_s_2014_6				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_6_20190313_00006.jpg



View of the large rodent hole on the landside levee slope.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.25	Rating **	U	Issue No.	23
LM End	1.31	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.818277 °	37.819040 °
				-121.419725 °	-121.419760 °
DWR ID	DWR_RD2089_02_s_2012_23				
Comment Code					
BU : Building					
Inspector Comment					
Buildings and equipment encroach within 10-ft of landside toe. The boat was removed.					

Photo 1 of 1 : SP_2019_RD2089_317_23_20190313_00024.jpg



View of buildings and patio decks within 10-ft of the levee slope. Fall 2009

LM Start	1.26	Rating **	U	Issue No.	33
LM End	1.26	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.818408 °	37.818408 °
				-121.419738 °	-121.419738 °
DWR ID	DWR_RD2089_02_f_2018_33				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					
Tree on landward slope is overhanging crown of levee.					

Photo 1 of 1 : SP_2019_RD2089_317_33_20190313_00032.jpg



Looking west at trees overhanging crown of levee. (Fall 2018)

LM Start	1.27	Rating **	M	Issue No.	57
LM End	1.27	Issue Type +	En	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.818499 °	37.818499 °
				-121.419754 °	-121.419754 °
DWR ID	DWR_RD2089_02_f_2013_57				
Comment Code					
V6 : Landscaping					
Inspector Comment					
Remove cactus from levee crown.					

Photo 1 of 1 : SP_2019_RD2089_317_57_20190313_00064.jpg



View of the cactus on the crown at the landside levee shoulder.

*** 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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.29	Rating **	U	Issue No.	19
LM End	1.29	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.818740 °	37.818740 °
				-121.419759 °	-121.419759 °
DWR ID	DWR_RD2089_02_f_2016_19				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_19_20190313_00021.jpg



View of the rodent burrow in the landside levee slope.

LM Start	1.29	Rating **	A/W	Issue No.	32
LM End	1.29	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.818829 °	37.818829 °
				-121.419776 °	-121.419776 °
DWR ID	DWR_RD2089_02_s_2012_32				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	1.29	Rating **	N	Issue No.	18
LM End	1.29	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.818843 °	37.818843 °
				-121.419762 °	-121.419762 °
DWR ID	DWR_RD2089_02_f_2016_18				
Comment Code					
T5 : Tree stumps.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_18_20190313_00020.jpg



View of the tree stump from the levee crown.

* 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 - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.30	Rating **	U	Issue No.	16
LM End	1.30	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.818987 °	37.818987 °
				-121.419767 °	-121.419767 °
DWR ID	DWR_RD2089_02_s_2015_16				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2019_RD2089_317_16_20190313_00018.jpg



View of the rodent burrow in the landside levee slope.

LM Start	1.30	Rating **	M	Issue No.	8
LM End	1.34	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.818994 °	37.819556 °
				-121.419762 °	-121.419621 °
DWR ID	DWR_RD2089_02_f_2016_8				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 2 : SP_2019_RD2089_317_8_20190313_00008.jpg



View of the ice plant landscaping on the landside levee slope, looking downstream.

LM Start	1.30	Rating **	M	Issue No.	8 (cont)
LM End	1.34	Issue Type +	En	Location *	LS

Photo 2 of 2 : SP_2019_RD2089_317_8_20190313_00009.jpg



View of the ice plant and irrigation line on the landside levee slope, looking upstream.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2089 Stark

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Salmon Slough	Right	1.35	04/04/2019 04/04/2019	Alberto De Leon

LM Start	1.33	Rating **	U	Issue No.	11
LM End	1.33	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.819371 °	37.819371 °
				-121.419774 °	-121.419774 °
DWR ID	DWR_RD2089_02_f_2014_11				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Some of the rodent hole openings have collapsed.					

Photo 1 of 1 : SP_2019_RD2089_317_11_20190313_00012.jpg



View of the multiple rodent burrows on the landside levee slope.

* 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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