

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

Reclamation District No. 2098 Cache and Haas Slough

	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. 2098 Cache and Haas Slough

Waterway			Bank	Unit Miles
Unit No. 01 Yolo Bypass			Right	3.60
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/26/2019 -			
DWR Inspector	David Julian			
Accompanied By	Bryan Busch RD 2098			

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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start		Rating **	A	Issue No.	3
LM End		Issue Type +	Ma	Location *	
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals				
DWR ID	DWR_RD2098_01_f_2014_3				
Comment Code					
Inspector Comment					
RD 2098 has on file O+M Manual.					

No Photos

LM Start		Rating **	A	Issue No.	4
LM End		Issue Type +	Ma	Location *	
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment				
DWR ID	DWR_RD2098_01_f_2014_4				
Comment Code					
Inspector Comment					
RD 2098 has emergency supplies in storage along with equipment.					

No Photos

LM Start		Rating **	A	Issue No.	5
LM End		Issue Type +	Ma	Location *	
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training				
DWR ID	DWR_RD2098_01_f_2014_5				
Comment Code					
Inspector Comment					
RD 2098 has their team well prepared for a flood fight.					

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
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.07	Rating **	A	Issue No.	22
LM End	0.67	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.328125 °	38.319367 °
				-121.694047 °	-121.694040 °
DWR ID	DWR_RD2098_01_f_2018_22				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
The LMA is doing a good job of maintaining annual vegetation.					

Photo 1 of 2 : SP_2019_RD2098_244_22_20190326_00059.jpg



View looking downstream at vegetation on the waterside slope (Spring 2019).

LM Start	0.07	Rating **	A	Issue No.	22 (cont)
LM End	0.67	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : SP_2019_RD2098_244_22_20190311_00013.jpg



View of vegetation on the waterside slope. The vegetation is spread enough that can still see the levee but is thick enough that it should be removed (October 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.07	Rating **	A	Issue No.	16	
LM End	1.01	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			38.328125 °		38.314483 °
				-121.694047 °		-121.694012 °
DWR ID	DWR_RD2098_01_f_2018_16					
Comment Code						
V1 : Control annual grass and weeds on the levee slopes and easements.						
Inspector Comment						
The LMA is doing a good job of maintaining annual vegetation.						

Photo 1 of 2 : SP_2019_RD2098_244_16_20190326_00060.jpg



View looking downstream at vegetation on the landside slope (Spring 2019).

LM Start	0.07	Rating **	A	Issue No.	16 (cont)
LM End	1.01	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2019_RD2098_244_16_20190311_00005.jpg



View looking upstream at vegetation on the landside slope. Vegetation is spaced enough that still can partially see the levee slope but still should be removed (October 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.57	Rating **	M	Issue No.	13
LM End	1.06	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.320755 °	38.313700 °
				-121.693982 °	-121.693639 °
DWR ID	DWR_RD2098_01_s_2017_13				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Monitor and repair erosion on waterside.					

Photo 1 of 1 : SP_2019_RD2098_244_13_20190311_00003.jpg



View of erosion on waterside.

LM Start	0.87	Rating **	M	Issue No.	23
LM End	0.97	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.316480 °	38.315005 °
				-121.694015 °	-121.693995 °
DWR ID	DWR_RD2098_01_f_2018_23				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.96	Rating **	A/W	Issue No.	19
LM End	0.96	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.315200 °	38.315100 °
				-121.694100 °	-121.694100 °
DWR ID	DWR_RD2098_01_s_2018_19				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of cracking and sloughing of the lower landside levee slope.					
Site ID No:414					
Site Designation:LMA-241					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/24/2017					
Notes: Landside sloughing about 2' deep and extends to toe ditch.					

Photo 1 of 3 : LEVAL_SP_2019_414_3594.jpg



Photo 2 of 3 : LEVAL_SP_2019_414_3596.jpg



LM Start	0.96	Rating **	A/W	Issue No.	19 (cont)
LM End	0.96	Issue Type +	Ma	Location *	

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.96	Rating **	A/W	Issue No.	19 (cont)
LM End	0.96	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.315200 °	38.315100 °
				-121.694100 °	-121.694100 °
DWR ID	DWR_RD2098_01_s_2018_19				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of cracking and sloughing of the lower landside levee slope.					
Site ID No:414					
Site Designation:LMA-241					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/24/2017					
Notes: Landside sloughing about 2' deep and extends to toe ditch.					

Photo 3 of 3 : LEVAL_SP_2019_414_3603.jpg



LM Start	1.06	Rating **	C	Issue No.	24
LM End	1.64	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.313702 °	38.305367 °
				-121.693657 °	-121.693648 °
DWR ID	DWR_RD2098_01_f_2018_24				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
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
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	1.55	Rating **	M	Issue No.	14
LM End	1.55	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.306628 °	38.306628 °
				-121.693632 °	-121.693632 °
DWR ID	DWR_RD2098_01_f_2018_14				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					
Trim and thin trees to allow inspection and access to landside slope and toe. Also, remove fallen tree on landside slope.					

Photo 1 of 1 : SP_2019_RD2098_244_14_20190311_00004.jpg



View of fallen tree and other trees on waterside slope.

LM Start	1.76	Rating **	M	Issue No.	18
LM End	1.76	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.303611 °	38.303611 °
				-121.693607 °	-121.693607 °
DWR ID	DWR_RD2098_01_s_2018_18				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Monitor and repair erosion.					

Photo 1 of 1 : SP_2019_RD2098_244_18_20190311_00006.jpg



View of erosion.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	1.82	Rating **	M	Issue No.	41
LM End	1.82	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			38.302770 °	38.302770 °
				-121.693640 °	-121.693640 °
DWR ID	20965				
Comment Code					
Inspector Comment					
FS_ID:32197 DS_ID:20965 EP_NO: 10168 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA records, this pipe has a different owner. (O. Magana - DWR UCIP) 03/18/2014 Erosion under pipe at WS toe. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 10-inch steel drainage pipe through the levee, 2.8 feet below the crown. Pump in pump house off the landside (LS). (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 1.80)]. FS Date: 3/18/2014					

Photo 1 of 3 : UCIP_SP_2019_32197_58662.jpg



Pipe on WS slope.

LM Start	1.82	Rating **	M	Issue No.	41 (cont)
LM End	1.82	Issue Type +	Ma	Location *	

Photo 2 of 3 : UCIP_SP_2019_32197_58661.jpg



Pumphouse at lowpoint off LS 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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	1.82	Rating **	M	Issue No.	41 (cont)	
LM End	1.82	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP LMA Responsibility			38.302770 °		38.302770 °
				-121.693640 °		-121.693640 °
DWR ID	20965					
Comment Code						
Inspector Comment						
FS_ID:32197						
DS_ID:20965						
EP_NO: 10168						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA records, this pipe has a different owner. (O. Magana - DWR UCIP)						
03/18/2014 Erosion under pipe at WS toe. (W. Wylie - DWR UCIP)						
FIELD_STRUCT_DESC: 10-inch steel drainage pipe through the levee, 2.8 feet below the crown. Pump in pump house off the landside (LS). (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 1.80)].						
FS Date: 3/18/2014						

Photo 3 of 3 : UCIP_SP_2019_32197_58660.jpg



Erosion under pipe at WS 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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	1.83	Rating **	M	Issue No.	42
LM End	1.83	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.302552 °	38.302552 °
				-121.693653 °	-121.693653 °
DWR ID	20966				
Comment Code					
Inspector Comment					
FS_ID:32207 DS_ID:20966 EP_NO: 10168 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA records, this pipe is a drainage pipe. Need to coordinate with owner to obtain records to confirm line integrity. (O. Magana - DWR UCIP) 03/18/2014 Slide gate actuator bent but appears to be in closed position. No lid on standpipe. Appears abandoned and if so should be done so properly. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 24-inch drainage pipe of an unknown material through the levee, 24.5 feet below the crown. Two corrugated metal cutoff walls around the pipe at the center of the levee. Slide gate in a 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. Concrete saddle and apron on the WS end. Flap gate and U-shaped headwall on the landside (LS) end. (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/18/2014					

LM Start	1.83	Rating **	M	Issue No.	42 (cont)
LM End	1.83	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_32207_58665.jpg



36-inch CMP riser with bent slide gate actuator on WS slope.

Photo 2 of 3 : UCIP_SP_2019_32207_58664.jpg



No lid on CMP riser that is 24-feet deep.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.00	Rating **	M	Issue No.	43
LM End	2.00	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.300152 °	38.300152 °
				-121.693626 °	-121.693626 °
DWR ID	20967				
Comment Code					
Inspector Comment					
FS_ID:32225 DS_ID:20967 EP_NO: 10168 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, line has been abandoned. New property owner is Anderson. (O. Magana - DWR UCIP) 03/18/2014 Pipe appears abandoned and if so should be done so properly. Pipe open on WS at pumphouse as there is no connection to pump. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: *ABANDONED* 2-inch galvanized iron irrigation pipe through the levee, 10 feet below the crown. Pump in pump house on the waterside (WS) slope next to fishing dock. Power pole and meter at the landside (LS) toe, next to hose bib. 1-inch steel electrical conduit at the same location. (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/18/2014					

LM Start	2.00	Rating **	M	Issue No.	43 (cont)
LM End	2.00	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_32225_58687.jpg



Pumphouse next to fishing dock on WS slope.

Photo 2 of 3 : UCIP_SP_2019_32225_58686.jpg



Power pole and meter next to spigot on LS 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
--	--	---	--	---

Reclamation District No. 2098 Cache and Haas Slough

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.21	Rating **	A/W	Issue No.	21
LM End	2.22	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.297100 °	38.297000 °
				-121.693300 °	-121.693300 °
DWR ID	DWR_RD2098_01_s_2018_21				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of erosion, cracking, and sloughing of the waterside levee slope.					
Site ID No:416					
Site Designation:LMA-243					
Repair Type: Erosion					
Rating:Serious					
Field Date:7/24/2017					
Notes: Erosion with sloughing. About 2' vertical cut at top of erosion.					

Photo 1 of 3 : LEVAL_SP_2019_416_2726.jpg



LM Start	2.21	Rating **	A/W	Issue No.	21 (cont)
LM End	2.22	Issue Type +	Ma	Location *	

Photo 2 of 3 : LEVAL_SP_2019_416_2727.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
--	---	---

Levee Inspection Report By Mile - Spring 2019

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

Photo 3 of 3 : LEVAL_SP_2019_416_2728.jpg



Photo 1 of 3 : SP_2019_RD2098_244_27_20190311_00014.jpg

A photograph showing a shoreline. On the left is a body of water. In the background, across the water, is a line of green trees. The foreground is dominated by dense, dry, yellowish-brown vegetation, possibly reeds or tall grasses, with some green plants at the bottom left. A person is visible standing on the distant shore.Page 15 of 33

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.29	Rating **	A/W	Issue No.	27 (cont)	
LM End	2.31	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	2017 Storm Damage			38.295900 °		38.295700 °
				-121.693500 °		-121.693500 °
DWR ID	DWR_RD2098_01_f_2017_27					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:The damage consists of scour and sloughing of the waterside levee slope.						
Site ID No:421						
Site Designation:LMA-248						
Repair Type: Erosion						
Rating:Serious						
Field Date:7/24/2017						
Notes: Toe of slope has eroded and minor sloughing has started.						

Photo 2 of 3 : SP_2019_RD2098_244_27_20190311_00015.jpg



Photo 3 of 3 : SP_2019_RD2098_244_27_20190311_00016.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
--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.30	Rating **	M	Issue No.	20
LM End	2.32	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.295870 °	38.295430 °
				-121.693645 °	-121.693628 °
DWR ID	DWR_RD2098_01_s_2017_20				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

No Photos

LM Start	2.35	Rating **	A/W	Issue No.	28
LM End	2.39	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.295100 °	38.294500 °
				-121.693400 °	-121.693400 °
DWR ID	DWR_RD2098_01_f_2017_28				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour, sloughing, and cracking of the lower and mid waterside levee slope.					
Site ID No:423					
Site Designation:LMA-250					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/24/2017					
Notes: 2' of sloughing about half way up the slope.					

Photo 1 of 3 : SP_2019_RD2098_244_28_20190311_00017.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
--	--	---	--	---

Levee Inspection Report By Mile - Spring 2019

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.35	Rating **	A/W	Issue No.	28 (cont)
LM End	2.39	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.295100 °	38.294500 °
				-121.693400 °	-121.693400 °
DWR ID	DWR_RD2098_01_f _ 2017_28				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour, sloughing, and cracking of the lower and mid waterside levee slope.					
Site ID No:423					
Site Designation:LMA-250					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/24/2017					
Notes: 2' of sloughing about half way up the slope.					

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.75	Rating **	A/W	Issue No.	34
LM End	2.78	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.289200 °	38.288800 °
				-121.693500 °	-121.693500 °
DWR ID	DWR_RD2098_01_f _ 2017_34				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the waterside levee slope.					
Site ID No:429					
Site Designation:LMA-256					
Repair Type: Erosion					
Rating:Serious					
Field Date:7/25/2017					
Notes: Erosion at WS toe, causing sloughing half-way down WS slope.					

Photo 1 of 3 : SP_2019_RD2098_244_34_20190311_00020.jpg



LM Start	2.75	Rating **	A/W	Issue No.	34 (cont)
LM End	2.78	Issue Type +	Ma	Location *	

Photo 2 of 3 : SP_2019_RD2098_244_34_20190311_00021.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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.75	Rating **	A/W	Issue No.	34 (cont)	
LM End	2.78	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	2017 Storm Damage			38.289200 °		38.288800 °
				-121.693500 °		-121.693500 °
DWR ID	DWR_RD2098_01_f_2017_34					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:The damage consists of scour and sloughing of the waterside levee slope.						
Site ID No:429						
Site Designation:LMA-256						
Repair Type: Erosion						
Rating:Serious						
Field Date:7/25/2017						
Notes: Erosion at WS toe, causing sloughing half-way down WS slope.						

Photo 3 of 3 : SP_2019_RD2098_244_34_20190311_00022.jpg



LM Start	2.78	Rating **	A/W	Issue No.	35
LM End	2.81	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.288800 °	38.288400 °
				-121.693500 °	-121.693500 °
DWR ID	DWR_RD2098_01_f_2017_35				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the waterside levee slope.					
Site ID No:430					
Site Designation:LMA-257					
Repair Type: Erosion					
Rating:Serious					
Field Date:7/25/2017					
Notes: Erosion at waterside toe, causing sloughing 2/3 down waterside slope.					

Photo 1 of 3 : SP_2019_RD2098_244_35_20190311_00023.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
--	--	---	--	---

Levee Inspection Report By Mile - Spring 2019

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.78	Rating **	A/W	Issue No.	35 (cont)
LM End	2.81	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.288800 °	38.288400 °
				-121.693500 °	-121.693500 °
DWR ID	DWR_RD2098_01_f_2017_35				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the					
waterside levee slope.					
Site ID No:430					
Site Designation:LMA-257					
Repair Type: Erosion					
Rating:Serious					
Field Date:7/25/2017					
Notes: Erosion at waterside toe, causing sloughing 2/3 down waterside					
slope.					

A photograph showing a shoreline with dense green vegetation and a body of water. The water is blue and calm, with some small waves visible. The vegetation is lush and green, with some yellow flowers visible. The shoreline is rocky and uneven, with some debris and small structures visible. The sky is clear and blue.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.80	Rating **	M	Issue No.	11
LM End	2.97	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.288590 °	38.286013 °
				-121.693645 °	-121.693632 °
DWR ID	DWR_RD2098_01_f_2017_11				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Nearby construction operations forced termination of goat grazing. Vegetation should be cleared.					

Photo 1 of 1 : SP_2019_RD2098_244_11_20190311_00001.jpg



View of vegetation on waterside slope.

LM Start	2.80	Rating **	M	Issue No.	12
LM End	3.60	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.288590 °	38.277458 °
				-121.693645 °	-121.696303 °
DWR ID	DWR_RD2098_01_f_2017_12				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Nearby construction operations forced termination of goat grazing. Vegetation should be cleared.					

Photo 1 of 1 : SP_2019_RD2098_244_12_20190311_00002.jpg



View of vegetation on landside 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	
---	--	--	--	--	--

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.91	Rating **	A/W	Issue No.	36
LM End	2.93	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.286900 °	38.286700 °
				-121.693500 °	-121.693500 °
DWR ID	DWR_RD2098_01_f _ 2017_36				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the waterside levee slope.					
Site ID No:431					
Site Designation:LMA-258					
Repair Type: Erosion					
Rating:Serious					
Field Date:7/25/2017					
Notes: Erosion of WS toe, resulting in 8' verticle wall.					

LM Start	2.91	Rating **	A/W	Issue No.	36 (cont)
LM End	2.93	Issue Type +	Ma	Location *	

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.91	Rating **	A/W	Issue No.	36 (cont)	
LM End	2.93	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			38.286900 °	38.286700 °	
				-121.693500 °	-121.693500 °	
DWR ID	DWR_RD2098_01_f_2017_36					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:The damage consists of scour and sloughing of the waterside levee slope.						
Site ID No:431						
Site Designation:LMA-258						
Repair Type: Erosion						
Rating:Serious						
Field Date:7/25/2017						
Notes: Erosion of WS toe, resulting in 8' verticle wall.						

Photo 3 of 3 : SP_2019_RD2098_244_36_20190311_00028.jpg



LM Start	2.99	Rating **	C	Issue No.	37
LM End	3.29	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.285700 °	38.281500 °
				-121.693500 °	-121.694300 °
DWR ID	DWR_RD2098_01_f_2017_37				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the waterside levee slope.					
Site ID No:432					
Site Designation:LMA-259					
Repair Type: Erosion					
Rating:Serious					
Field Date:7/25/2017					
Notes: Varying erosion and sloughing at WS toe. Revetment at end of levee section. Repaired in September 2018					

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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.01	Rating **	M	Issue No.	44	
LM End	3.01	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.285525 °	38.285525 °	
				-121.693640 °	-121.693640 °	
DWR ID	20969					
Comment Code						
Inspector Comment						
FS_ID:32227 DS_ID:20969 EP_NO: 13222 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/18/2014 Pipe rusted through at outlet on WS slope, may indicate further degradation of pipe within levee. Good candidate for video inspection. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 20-inch steel drainage pipe through the levee, 7.5 feet below the crown. Siphon breaker on the waterside (WS) shoulder. Pump on pile structure in drainage ditch on the landside (LS). (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers. Pipe removed and replaced with a 19-inch steel pipe under the crown and along the LS slope under Permit No. 13222, 1981 - Prudential Insurance Company of America). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 2.98)]. FS Date: 3/18/2014						

LM Start	3.01	Rating **	M	Issue No.	44 (cont)
LM End	3.01	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_32227_58692.jpg



Pump on pile structure in drainage channel on LS toe.

Photo 2 of 3 : UCIP_SP_2019_32227_58691.jpg



Siphon breaker in steel riser on WS 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.01	Rating **	M	Issue No.	44 (cont)
LM End	3.01	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.285525 °	38.285525 °
				-121.693640 °	-121.693640 °
DWR ID	20969				
Comment Code					
Inspector Comment					
FS_ID:32227 DS_ID:20969 EP_NO: 13222 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/18/2014 Pipe rusted through at outlet on WS slope, may indicate further degradation of pipe within levee. Good candidate for video inspection. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 20-inch steel drainage pipe through the levee, 7.5 feet below the crown. Siphon breaker on the waterside (WS) shoulder. Pump on pile structure in drainage ditch on the landside (LS). (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers. Pipe removed and replaced with a 19-inch steel pipe under the crown and along the LS slope under Permit No. 13222, 1981 - Prudential Insurance Company of America). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 2.98)]. FS Date: 3/18/2014					

Photo 3 of 3 : UCIP_SP_2019_32227_58690.jpg



Pipe rusted through at outlet on WS slope.

LM Start	3.18	Rating **	C	Issue No.	17
LM End	3.60	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.283035 °	38.277458 °
				-121.693617 °	-121.696303 °
DWR ID	DWR_RD2098_01_f_2017_17				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
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	
--	--	--	--	---	--	---	--

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.31	Rating **	C	Issue No.	39
LM End	3.32	Issue Type +	Ma	Location *	
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	2017 Storm Damage		38.281200 °	38.281100 °	
			-121.694500 °	-121.694600 °	
DWR ID	DWR_RD2098_01_f_2017_39				
Comment Code					
Inspector Comment					
Levee Evaluation Comments Description: The damage consists of scour and sloughing of the lower waterside levee slope. Site ID No: 433 Site Designation: LMA-260 Repair Type: Erosion Rating: Area of Concern Field Date: 7/25/2017 Notes: Two combined erosion sites (260 and 261) adjacent to each other at WS toe. Existing rip rap placed at area of concern.					

No Photos

LM Start	3.44	Rating **	C	Issue No.	25
LM End	3.59	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.279555 °	38.277490 °	
			-121.695588 °	-121.696253 °	
DWR ID	DWR_RD2098_01_f_2018_25				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
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
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.49	Rating **	M	Issue No.	45 (cont)	
LM End	3.49	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.278879 °		38.278879 °
				-121.695957 °		-121.695957 °
DWR ID	20970					
Comment Code						
Inspector Comment						
FS_ID:32243 DS_ID:20970 EP_NO: 10168 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/18/2014 Walkway to slidegate on WS toe is in poor structural condition and may not be safe for accessing the slide gate actuator. Pipe appears abandoned and if so should be done so properly. Outlet on LS toe may be buried. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 24-inch steel irrigation pipe through the levee, 22.3 feet below the crown. Slide gate on the waterside (WS) end. Walkway from the WS shoulder to the slide gate control. Flap gate on the landside (LS) end. (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/18/2014						

Photo 3 of 3 : UCIP_SP_2019_32243_58700.jpg



Slidegate on WS toe at pipe.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.50	Rating **	M	Issue No.	46
LM End	3.50	Issue Type +	En	Location *	
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		38.278770 °	38.278770 °	
			-121.696050 °	-121.696050 °	
DWR ID	20971				

Comment Code

Inspector Comment

FS_ID:41717
 DS_ID:20971
 EP_NO: 15169
 Repair Type: Non-Urgent
 Crossing Status: Found
 UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, pipe is a drainage pipe. New property owner is John Anderson. (O. Magana - DWR UCIP)
 03/18/2014 Debris and soil buildup in riser may prevent proper function of siphon breaker. (W. Wylie - DWR UCIP)
 FIELD_STRUCT_DESC: 1 of 2: 24-inch coated steel drainage pipe through the levee, 5.6 feet below the crown. Cutoff wall around the pipe at the center of the levee. Siphon breaker at the waterside (WS) shoulder. Flap gate on the WS end. Pump in pump house on piling structure on the landside (LS). (Permit No. 15169, 1989 - Maxim Development). [Additional Reference(s): DWR Levee Log, 2003].
 FS Date: 3/18/2014

LM Start	3.50	Rating **	M	Issue No.	46 (cont)
LM End	3.50	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_41717_58704.jpg



Pump in pumphouse on LS toe.

Photo 2 of 3 : UCIP_SP_2019_41717_58703.jpg



Pump in pumphouse on LS toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.50	Rating **	M	Issue No.	46 (cont)
LM End	3.50	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.278770 °	38.278770 °
				-121.696050 °	-121.696050 °
DWR ID	20971				
Comment Code					
Inspector Comment					
FS_ID:41717 DS_ID:20971 EP_NO: 15169 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, pipe is a drainage pipe. New property owner is John Anderson. (O. Magana - DWR UCIP) 03/18/2014 Debris and soil buildup in riser may prevent proper function of siphon breaker. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 1 of 2: 24-inch coated steel drainage pipe through the levee, 5.6 feet below the crown. Cutoff wall around the pipe at the center of the levee. Siphon breaker at the waterside (WS) shoulder. Flap gate on the WS end. Pump in pump house on piling structure on the landside (LS). (Permit No. 15169, 1989 - Maxim Development). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/18/2014					

Photo 3 of 3 : UCIP_SP_2019_41717_58707.jpg



Siphon breaker in 24-inch steel riser on WS shoulder.

LM Start	3.50	Rating **	C	Issue No.	40	
LM End	3.56	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			38.278700 °	38.278000 °	
				-121.695900 °	-121.696100 °	
DWR ID	DWR_RD2098_01_f_2017_40					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:The damage consists of scour and sloughing of the lower and mid waterside levee slope.						
Site ID No:435						
Site Designation:LMA-262						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:7/25/2017						
Notes: Two combined sloughing sites adjacent to each other on lower waterside slope. Existing rip rap on beginning 100' section of site 262. This site is combined with site 263.						

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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.50	Rating **	M	Issue No.	47
LM End	3.50	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.278759 °	38.278759 °
				-121.696059 °	-121.696059 °
DWR ID	20959				
Comment Code					
Inspector Comment					
FS_ID:32245 DS_ID:20959 EP_NO: 15169 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, pipe is a drainage pipe. New property owner is John Anderson. (O. Magana - DWR UCIP) 03/18/2014 Soil and debris buildup in steel riser on WS shoulder may prevent proper function of siphon breaker. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 2 of 2: 24-inch coated steel drainage pipe through the levee, 5.6 feet below the crown. Cutoff wall around the pipe at the center of the levee. Siphon breaker on the waterside (WS) shoulder. Flap gate on the WS end. Pump in pump house on piling structure on the landside (LS). (Permit No. 15169, 1989 - Maxim Development). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/18/2014					

LM Start	3.50	Rating **	M	Issue No.	47 (cont)
LM End	3.50	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_32245_58710.jpg



Pump in pumphouse on LS toe.

Photo 2 of 3 : UCIP_SP_2019_32245_58709.jpg



Pump in pumphouse on LS toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.50	Rating **	M	Issue No.	47 (cont)	
LM End	3.50	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.278759 °	38.278759 °	
				-121.696059 °	-121.696059 °	
DWR ID	20959					
Comment Code						
Inspector Comment						
FS_ID:32245 DS_ID:20959 EP_NO: 15169 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, pipe is a drainage pipe. New property owner is John Anderson. (O. Magana - DWR UCIP) 03/18/2014 Soil and debris buildup in steel riser on WS shoulder may prevent proper function of siphon breaker. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 2 of 2: 24-inch coated steel drainage pipe through the levee, 5.6 feet below the crown. Cutoff wall around the pipe at the center of the levee. Siphon breaker on the waterside (WS) shoulder. Flap gate on the WS end. Pump in pump house on piling structure on the landside (LS). (Permit No. 15169, 1989 - Maxim Development). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/18/2014						

Photo 3 of 3 : UCIP_SP_2019_32245_58708.jpg



Siphon breaker in steel riser on WS shoulder.

* 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**

Unit Cover Sheet

Spring 2019 Levee Inspection Results

Reclamation District No. 2098 Cache and Haas Slough

Waterway			Bank	Unit Miles
Unit No. 01A Cross Levee			Right	0.53
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/26/2019 - 3/26/2019			
DWR Inspector	David Julian			
Accompanied By	Bryan Busch RD 2098			

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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01A Cross Levee	Right	0.53	03/26/2019 03/26/2019	David Julian

LM Start	0.00	Rating **	A	Issue No.	2
LM End	0.52	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.277382 °	38.275722 °
				-121.696270 °	-121.705675 °
DWR ID	DWR_RD2098_01A_s_2019_2				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
Continue to maintain annual vegetation.					

Photo 1 of 1 : SP_2019_RD2098_245_2_20190329_00004.jpg



View looking upstream at annual vegetation on the waterside slope (Spring 2019).

LM Start	0.00	Rating **	A	Issue No.	1
LM End	0.52	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.277382 °	38.275722 °
				-121.696270 °	-121.705675 °
DWR ID	DWR_RD2098_01A_s_2017_1				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
Continue to maintain annual vegetation.					

Photo 1 of 1 : SP_2019_RD2098_245_1_20190329_00005.jpg



View looking upstream at annual vegetation on the 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	
---	--	--	--	--	--

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Spring 2019 Levee Inspection Results

Reclamation District No. 2098 Cache and Haas Slough

Waterway			Bank	Unit Miles
Unit No. 02 Cache Slough			Left	1.89
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/26/2019 - 3/26/2019			
DWR Inspector	David Julian			
Accompanied By	Bryan Busch RD 2098			

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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	5.30	Rating **	C	Issue No.	9
LM End	5.56	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.275757 °	38.278863 °
				-121.705818 °	-121.708687 °
DWR ID	DWR_RD2098_02_s_2017_9				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Remove the wild weed growth from the waterside levee slope.					

No Photos

LM Start	5.30	Rating **	A	Issue No.	6
LM End	7.19	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.275757 °	38.293139 °
				-121.705818 °	-121.724174 °
DWR ID	DWR_RD2098_02_s_2019_6				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
LMA is doing a good job of maintaining annual vegetation					

Photo 1 of 1 : SP_2019_RD2098_246_6_20190329_00038.jpg



View looking upstream at annual vegetation on the waterside slope (Spring 2019).

LM Start	5.30	Rating **	A	Issue No.	14
LM End	7.19	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.275757 °	38.293139 °
				-121.705818 °	-121.724174 °
DWR ID	DWR_RD2098_02_s_2019_14				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
LMA is doing a good job maintaining annual vegetation					

Photo 1 of 1 : SP_2019_RD2098_246_14_20190329_00039.jpg



View looking upstream at annual vegetation on the 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	
--	--	--	--	---	--	---	--

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	5.48	Rating **	C	Issue No.	8
LM End	5.61	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.277922 °	38.279443 °
				-121.707698 °	-121.709233 °
DWR ID	DWR_RD2098_02_s_2017_8				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Remove the wild weed growth from the landside levee slope and berm.					

No Photos

LM Start	5.71	Rating **	M	Issue No.	21
LM End	5.71	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.280788 °	38.280788 °
				-121.709617 °	-121.709617 °
DWR ID	20973				
Comment Code					
Inspector Comment					
FS_ID:32287 DS_ID:20973 EP_NO: 10172 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, pipe is a drainage pipe. (O. Magana - DWR UCIP) 03/18/2014 Pipe appears abandoned and if so should be done so properly. Slide gate appears to be open and should be closed for the season. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 24-inch corrugated metal drainage pipe through the levee, 22.8 feet below the crown. Two cutoff walls around the pipe at the levee shoulders. Slide gate in 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. Flap gate and concrete U-shaped headwall on the landside (LS) end. (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/18/2014					

Photo 1 of 3 : UCIP_SP_2019_32287_58755.jpg



LS - no pipe visible.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	5.71	Rating **	M	Issue No.	21 (cont)	
LM End	5.71	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.280788 °	38.280788 °	
				-121.709617 °	-121.709617 °	
DWR ID	20973					
Comment Code						
Inspector Comment						
FS_ID:32287 DS_ID:20973 EP_NO: 10172 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, pipe is a drainage pipe. (O. Magana - DWR UCIP) 03/18/2014 Pipe appears abandoned and if so should be done so properly. Slide gate appears to be open and should be closed for the season. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 24-inch corrugated metal drainage pipe through the levee, 22.8 feet below the crown. Two cutoff walls around the pipe at the levee shoulders. Slide gate in 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. Flap gate and concrete U-shaped headwall on the landside (LS) end. (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/18/2014						

LM Start	5.71	Rating **	M	Issue No.	21 (cont)
LM End	5.71	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2019_32287_58754.jpg



Slide gate in 36-inch standpipe on WS slope.

Photo 3 of 3 : UCIP_SP_2019_32287_58753.jpg



Slide gate in 36-inch standpipe on WS 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	5.88	Rating **	M	Issue No.	11
LM End	5.88	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.282946 °	38.282946 °
				-121.710902 °	-121.710902 °
DWR ID	DWR_RD2098_02_s_2018_11				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
This waterside slump site is not new, and is somewhat protected by riprap and thick brushy vegetation, but it has the potential to erode into crown during high water with a strong south wind. It currently has a two-foot vertical scarp at the levee shoulder.					

Photo 1 of 1 : SP_2019_RD2098_246_11_20190311_00004.jpg



Repair slumping on waterside slope.

LM Start	5.89	Rating **	C	Issue No.	13
LM End	6.15	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.283053 °	38.284662 °
				-121.711010 °	-121.715028 °
DWR ID	DWR_RD2098_02_f_2018_13				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	6.12	Rating **	M	Issue No.	12
LM End	6.12	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.284348 °	38.284348 °
				-121.714682 °	-121.714682 °
DWR ID	DWR_RD2098_02_f_2016_12				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Remove this nut tree from the landside slope.					

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. 2098 Cache and Haas Slough

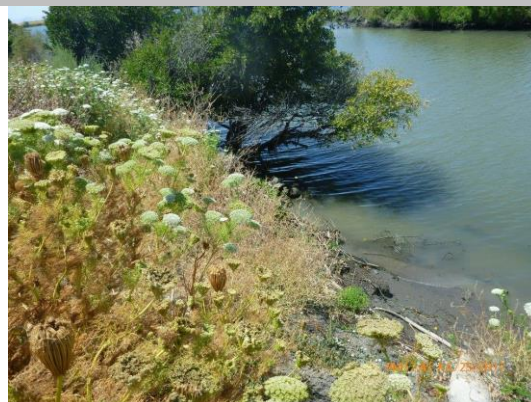
Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.46	Rating **	A/W	Issue No.	15
LM End	6.46	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.288700 °	38.288800 °
				-121.717000 °	-121.717000 °
DWR ID	DWR_RD2098_02_f_2017_15				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour of the lower and mid waterside levee slope.					
Site ID No:440					
Site Designation:LMA-267					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/25/2017					
Notes: Sloughing on waterside slope due to toe erosion.					

Photo 1 of 3 : SP_2019_RD2098_246_15_20190311_00005.jpg



Photo 2 of 3 : SP_2019_RD2098_246_15_20190311_00006.jpg



LM Start	6.46	Rating **	A/W	Issue No.	15 (cont)
LM End	6.46	Issue Type +	Ma	Location *	

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.46	Rating **	A/W	Issue No.	15 (cont)
LM End	6.46	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.288700 °	38.288800 °
				-121.717000 °	-121.717000 °
DWR ID	DWR_RD2098_02_f_2017_15				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour of the lower and mid waterside levee slope.					
Site ID No:440					
Site Designation:LMA-267					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/25/2017					
Notes: Sloughing on waterside slope due to toe erosion.					

Photo 3 of 3 : SP_2019_RD2098_246_15_20190311_00007.jpg



LM Start	6.47	Rating **	A/W	Issue No.	17
LM End	6.48	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.288900 °	38.289000 °
				-121.717000 °	-121.717000 °
DWR ID	DWR_RD2098_02_f_2017_17				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the lower and mid waterside levee slope.					
Site ID No:441					
Site Designation:LMA-268					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/25/2017					
Notes: Sloughing on waterside slope due to toe erosion.					

Photo 1 of 3 : SP_2019_RD2098_246_17_20190311_00008.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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.47	Rating **	A/W	Issue No.	17 (cont)
LM End	6.48	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.288900 °	38.289000 °
				-121.717000 °	-121.717000 °
DWR ID	DWR_RD2098_02_f _ 2017_17				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the lower and mid waterside levee slope.					
Site ID No:441					
Site Designation:LMA-268					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/25/2017					
Notes: Sloughing on waterside slope due to toe erosion.					

Photo 2 of 3 : SP_2019_RD2098_246_17_20190311_00009.jpg



Photo 3 of 3 : SP_2019_RD2098_246_17_20190311_00010.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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.48	Rating **	M	Issue No.	7
LM End	6.74	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.289080 °	38.292467 °
				-121.716852 °	-121.716140 °
DWR ID	DWR_RD2098_02_f_2017_7				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

LM Start	6.64	Rating **	A/W	Issue No.	18
LM End	6.65	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.291300 °	38.291400 °
				-121.716100 °	-121.716000 °
DWR ID	DWR_RD2098_02_f_2017_18				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour, cracking, instability, and sloughing of the waterside levee slope.					
Site ID No:442					
Site Designation:LMA-269					
Repair Type: Erosion					
Rating:Serious					
Field Date:7/25/2017					
Notes: Two sloughing sections along waterside slope due to toe erosion.					

Photo 1 of 3 : SP_2019_RD2098_246_18_20190311_00011.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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.64	Rating **	A/W	Issue No.	18 (cont)
LM End	6.65	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.291300 °	38.291400 °
				-121.716100 °	-121.716000 °
DWR ID	DWR_RD2098_02_f_2017_18				
Comment Code					
Inspector Comment					
Levee Evaluation Comments Description:The damage consists of scour, cracking, instability, and sloughing of the waterside levee slope. Site ID No:442 Site Designation:LMA-269 Repair Type: Erosion Rating:Serious Field Date:7/25/2017 Notes: Two sloughing sections along waterside slope due to toe erosion.					
LM Start	6.64	Rating **	A/W	Issue No.	18 (cont)
LM End	6.65	Issue Type +	Ma	Location *	

Photo 2 of 3 : SP_2019_RD2098_246_18_20190311_00012.jpg

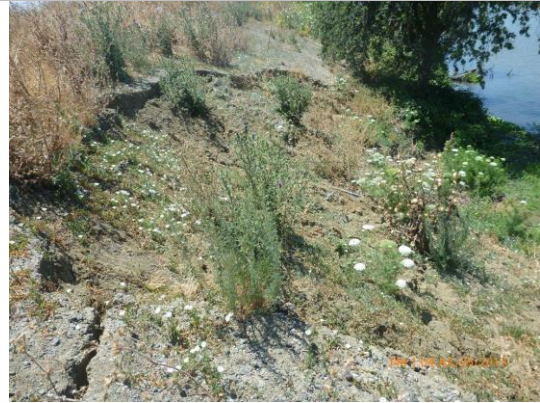


Photo 3 of 3 : SP_2019_RD2098_246_18_20190311_00013.jpg



* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.70	Rating **	M	Issue No.	10
LM End	6.70	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.292076 °	38.292076 °
				-121.715792 °	-121.715792 °
DWR ID	DWR_RD2098_02_s_2014_10				
Comment Code					
MA : Material					
Inspector Comment					
Large concrete slab partially buried on waterside slope should be removed.					

Photo 1 of 1 : SP_2019_RD2098_246_10_20190311_00003.jpg



There is some slope damage at this location under this concrete. No new photo; RD will send crew out to check area out.

LM Start	6.71	Rating **	M	Issue No.	22
LM End	6.71	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			38.292194 °	38.292194 °
				-121.715853 °	-121.715853 °
DWR ID	20976				
Comment Code					
Inspector Comment					
FS_ID:33784 DS_ID:20976 EP_NO: 10172 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/18/2014 Headwalls on WS toe failing at outlet. It is unclear if these were permanent installations or something that was installed as a temporary fix. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 1 of 2: 48-inch corrugated metal drainage pipe through the levee, 29 feet below the crown. Two slide gates in a 7-foot-diameter corrugated metal pipe (CMP) riser on the waterside (WS) slope. (two 48-inch [HLM 6.75] authorized under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 6.75)]. FS Date: 3/18/2014					

Photo 1 of 3 : UCIP_SP_2019_33784_61162.jpg



Two slide gates in 7-foot diameter CMP riser on waterward 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.71	Rating **	M	Issue No.	22 (cont)	
LM End	6.71	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP LMA Responsibility			38.292194 °		38.292194 °
				-121.715853 °		-121.715853 °
DWR ID	20976					
Comment Code						
Inspector Comment						
FS_ID:33784 DS_ID:20976 EP_NO: 10172 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/18/2014 Headwalls on WS toe failing at outlet. It is unclear if these were permanent installations or something that was installed as a temporary fix. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 1 of 2: 48-inch corrugated metal drainage pipe through the levee, 29 feet below the crown. Two slide gates in a 7-foot-diameter corrugated metal pipe (CMP) riser on the waterside (WS) slope. (two 48-inch [HLM 6.75] authorized under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 6.75)]. FS Date: 3/18/2014						

Photo 2 of 3 : UCIP_SP_2019_33784_61161.jpg



Inlet not visible on LS toe.

LM Start	6.71	Rating **	M	Issue No.	22 (cont)
LM End	6.71	Issue Type +	Ma	Location *	

Photo 3 of 3 : UCIP_SP_2019_33784_61160.jpg



View inside CMP riser on WS shoulder.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.72	Rating **	M	Issue No.	23
LM End	6.72	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			38.292234 °	38.292234 °
				-121.715875 °	-121.715875 °
DWR ID	20961				
Comment Code					
Inspector Comment					
FS_ID:32285 DS_ID:20961 EP_NO: 10172 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/18/2014 Headwalls at WS toe failing. It is uncertain if these retaining walls were a permanent fixture or a temporary fix that failed. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 2 of 2: 48-inch corrugated metal drainage pipe through the levee, 29 feet below the crown. Two slide gates in a 7-foot-diameter corrugated metal pipe (CMP) riser on the waterside (WS) slope. (two 48-inch pipes [HLM 6.75] authorized under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 6.75)]. FS Date: 3/18/2014					

Photo 1 of 3 : UCIP_SP_2019_32285_58749.jpg



Inlet not visible on LS toe.

LM Start	6.72	Rating **	M	Issue No.	23 (cont)
LM End	6.72	Issue Type +	Ma	Location *	

Photo 2 of 3 : UCIP_SP_2019_32285_58748.jpg



7-foot diameter CMP riser with two slide gates inside.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.72	Rating **	M	Issue No.	23 (cont)	
LM End	6.72	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			38.292234 °	38.292234 °	
				-121.715875 °	-121.715875 °	
DWR ID	20961					
Comment Code						
Inspector Comment						
FS_ID:32285						
DS_ID:20961						
EP_NO: 10172						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: 03/18/2014 Headwalls at WS toe failing. It is uncertain if these retaining walls were a permanent fixture or a temporary fix that failed. (W. Wylie - DWR UCIP)						
FIELD_STRUCT_DESC: 2 of 2: 48-inch corrugated metal drainage pipe through the levee, 29 feet below the crown. Two slide gates in a 7-foot-diameter corrugated metal pipe (CMP) riser on the waterside (WS) slope. (two 48-inch pipes [HLM 6.75] authorized under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers).						
[Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 6.75)].						
FS Date: 3/18/2014						

Photo 3 of 3 : UCIP_SP_2019_32285_58747.jpg



7-foot diameter CMP riser with two slide gates inside.

LM Start	6.74	Rating **	A/W	Issue No.	19
LM End	6.75	Issue Type +	Ma	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.292500 °	38.292600 °
				-121.716100 °	-121.716200 °
DWR ID	DWR_RD2098_02_f_2017_19				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the					
landside levee slope.					
Site ID No:443					
Site Designation:LMA-270					
Repair Type: Stability					
Rating:Area of Concern					
Field Date:7/25/2017					
Notes: Sloughing on crown into upper portion of landside levee slope.					

Photo 1 of 3 : SP_2019_RD2098_246_19_20190311_00014.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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.74	Rating **	A/W	Issue No.	19 (cont)
LM End	6.75	Issue Type +	Ma	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.292500 °	38.292600 °
				-121.716100 °	-121.716200 °
DWR ID	DWR_RD2098_02_f_2017_19				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the					
landside levee slope.					
Site ID No:443					
Site Designation:LMA-270					
Repair Type: Stability					
Rating:Area of Concern					
Field Date:7/25/2017					
Notes: Sloughing on crown into upper portion of landside levee slope.					

Photo 2 of 3 : SP_2019_RD2098_246_19_20190311_00015.jpg



Photo 3 of 3 : SP_2019_RD2098_246_19_20190311_00016.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
--	---	---

Levee Inspection Report By Mile - Spring 2019

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

Levee Evaluation Comments
Description: The damage consists of cracking of the levee crest.
Site ID No: 444
Site Designation: LMA-271
Repair Type: Erosion
Rating: Area of Concern
Field Date: 7/25/2017
Notes: Two combined sloughing locations (271 and 272) within levee crown into waterside and landside slopes. Sloughing on landside slope bulges into ditch at toe.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.77	Rating **	A/W	Issue No.	20 (cont)
LM End	6.80	Issue Type +	Ma	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.292900 °	38.293000 °
				-121.716600 °	-121.717000 °
DWR ID	DWR_RD2098_02_f_2017_20				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of cracking of the levee crest.					
Site ID No:444					
Site Designation:LMA-271					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/25/2017					
Notes: Two combined sloughing locations (271 and 272) within levee crown into waterside and landside slopes. Sloughing on landside slope bulges into ditch at toe.					

Photo 3 of 4 : SP_2019_RD2098_246_20_20190311_00019.jpg



Photo 4 of 4 : SP_2019_RD2098_246_20_20190311_00020.jpg



10/26/17: Notice depression in crown road and slumping toward the left/landside (bulge at toe of levee).

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	7.19	Rating **	M	Issue No.	24
LM End	7.19	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.293139 °	38.293139 °
				-121.724174 °	-121.724174 °
DWR ID	20977				
Comment Code					
Inspector Comment					
FS_ID:32290 DS_ID:20977 EP_NO: 10171 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, pipe is a drainage pipe.(O. Magana - DWR UCIP) 03/18/2014 Pipe appears to be abandoned and if so it should be done so properly. Walkway to gate valve actuator on WS slope is in disrepair and does not appear to be safe for use. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 36-inch corrugated metal drainage pipe through the levee, 23 feet below the crown. Walkway to slide gate on the waterside (WS) end. Slide gate at the landside (LS) toe. (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10171, 1974 - Glenn A. Bowlsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 7.23)]. FS Date: 3/18/2014					

LM Start	7.19	Rating **	M	Issue No.	24 (cont)
LM End	7.19	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_32290_58764.jpg



Slide gate at LS toe.

Photo 2 of 3 : UCIP_SP_2019_32290_58763.jpg



Delapidated wooden pier on WS shoulder.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	7.19	Rating **	M	Issue No.	24 (cont)	
LM End	7.19	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.293139 °		38.293139 °
				-121.724174 °		-121.724174 °
DWR ID	20977					
Comment Code						
Inspector Comment						
FS_ID:32290 DS_ID:20977 EP_NO: 10171 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, pipe is a drainage pipe.(O. Magana - DWR UCIP) 03/18/2014 Pipe appears to be abandoned and if so it should be done so properly. Walkway to gate valve actuator on WS slope is in disrepair and does not appear to be safe for use. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 36-inch corrugated metal drainage pipe through the levee, 23 feet below the crown. Walkway to slide gate on the waterside (WS) end. Slide gate at the landside (LS) toe. (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10171, 1974 - Glenn A. Bowlsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 7.23)]. FS Date: 3/18/2014						

Photo 3 of 3 : UCIP_SP_2019_32290_58762.jpg



Concrete U-shaped headwall on WS 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
--	---	---

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	7.24	Rating **	A/W	Issue No.	25
LM End	7.24	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			38.293741 °	38.293741 °
				-121.724787 °	-121.724787 °
DWR ID	20978				

Comment Code

--

Inspector Comment	

FS_ID:32303
DS_ID:20978
EP_NO: 10171
Repair Type: No Action Needed
Crossing Status: Found
UCIP Comments: 09/14/2017 Permit review indicates this 24-inch pipe was authorized as an irrigation and drainage pipe under ABO issued as Permit No. 10171, structure description was updated. Structure type logged as drainage. (DWR UCIP - O. Magana)
FIELD_STRUCT_DESC: *ABANDONED* 24-inch steel dual-purpose irrigation and drainage pipe through the levee, 4.5 feet below the crown. Corrugated metal cutoff wall around the pipe. Pipe has welded steel plate over end on the landside (LS) slope and is not visible on the waterside (WS) slope. (24-inch pipe [HLM 7.23] authorized under Automatic Board Order (ABO) issued as Permit No. 10171, 1974 - Glenn A. Bowsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 7.28)].
FS Date: 3/18/2014 7:07:14 AM

LM Start	7.24	Rating **	A/W	Issue No.	25 (cont)
LM End	7.24	Issue Type +	Ma	Location *	

Photo 1 of 3 : UCIP_SP_2019_32303_58782.jpg



Pipe visible under new pipe on LS slope.

Photo 2 of 3 : UCIP_SP_2019_32303_58781.jpg



Pipe visible under new pipe on LS slope.

* 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**

Unit Cover Sheet

Spring 2019 Levee Inspection Results

Reclamation District No. 2098 Cache and Haas Slough

Waterway			Bank	Unit Miles
Unit No. 03 Haas Slough			Right	1.94
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/26/2019 - 3/26/2019			
DWR Inspector	David Julian			
Accompanied By	Bryan Busch RD 2098			

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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.24	Rating **	M	Issue No.	16
LM End	7.24	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.293741 °	38.293741 °
				-121.724787 °	-121.724787 °
DWR ID	24848				
Comment Code					
Inspector Comment					
FS_ID:32564 DS_ID:24848 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/19/2014 Need to verify pipe is properly abandoned as waterside is not visible. Was this filled with concrete or just capped? (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: *ABANDONED* 24-inch steel drainage pipe through the levee, 8 feet below the crown. Corrugated metal cutoff wall around the pipe. Steel plate welded over the landside (LS) end of the pipe. FS Date: 3/18/2014 8:14:00 AM					

No Photos

LM Start	7.29	Rating **	A	Issue No.	6
LM End	8.33	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.294473 °	38.306635 °
				-121.725092 °	-121.731700 °
DWR ID	DWR_RD2098_03_s_2019_6				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
LMA doing a good job maintaining annual vegetation					

Photo 1 of 1 : SP_2019_RD2098_247_6_20190326_00021.jpg



View looking upstream at annual vegetation on the 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
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.29	Rating **	A	Issue No.	8
LM End	8.33	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.294473 °	38.306635 °
				-121.725092 °	-121.731700 °
DWR ID	DWR_RD2098_03_s_2019_8				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
LMA doing a good job maintaining annual vegetation					

Photo 1 of 1 : SP_2019_RD2098_247_8_20190326_00020.jpg



View looking upstream at annual vegetation on the waterside slope (Spring 2019).

LM Start	7.33	Rating **	M	Issue No.	7
LM End	7.72	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 USACE Erosion Survey, DRAFT			38.294858 °	38.299606 °
				-121.725433 °	-121.728621 °
DWR ID	DWR_RD2098_03_f_2018_7				
Comment Code					
Inspector Comment					
2017 Site ID: HAS 7.9 L					
Status: Eroding					
2017 Field Notes: deep cracks along bank and toe, intermittent slump.					
Site History: 2011 - Large vertical erosion pockets and bank slumping.					

No Photos

LM Start	7.51	Rating **	M	Issue No.	1
LM End	7.51	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			38.296846 °	38.296846 °
				-121.727546 °	-121.727546 °
DWR ID	DWR_RD2098_03_f_2016_1				
Comment Code					
S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.					
Inspector Comment					
Livestock activity causing erosion of levee slope.					

Photo 1 of 3 : SP_2019_RD2098_247_1_20190311_00001.jpg



Close up. Looking upstream.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.51	Rating **	M	Issue No.	1 (cont)	
LM End	7.51	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Slope Stability			38.296846 °		38.296846 °
				-121.727546 °		-121.727546 °
DWR ID	DWR_RD2098_03_f_2016_1					
Comment Code						
S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.						
Inspector Comment						
Livestock activity causing erosion of levee slope.						

LM Start	7.51	Rating **	M	Issue No.	1 (cont)
LM End	7.51	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : SP_2019_RD2098_247_1_20190311_00002.jpg



Looking downstream.

Photo 3 of 3 : SP_2019_RD2098_247_1_20190311_00003.jpg



Erosion site on 03/15/18.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.61	Rating **	A/W	Issue No.	10
LM End	7.62	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.297900 °	38.298100 °
				-121.728900 °	-121.728900 °
DWR ID	DWR_RD2098_03_f_2017_10				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of sloughing of the lower and mid waterside levee slope.					
Site ID No:449					
Site Designation:LMA-276					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/27/2017					
Notes: Sloughing on waterside slope due to erosion at waterside toe.					

Photo 1 of 3 : SP_2019_RD2098_247_10_20190311_00006.jpg



LM Start	7.61	Rating **	A/W	Issue No.	10 (cont)
LM End	7.62	Issue Type +	Ma	Location *	

Photo 2 of 3 : SP_2019_RD2098_247_10_20190311_00007.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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.61	Rating **	A/W	Issue No.	10 (cont)	
LM End	7.62	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	2017 Storm Damage			38.297900 °		38.298100 °
				-121.728900 °		-121.728900 °
DWR ID	DWR_RD2098_03_f _ 2017_10					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:The damage consists of sloughing of the lower and mid waterside levee slope.						
Site ID No:449						
Site Designation:LMA-276						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:7/27/2017						
Notes: Sloughing on waterside slope due to erosion at waterside toe.						

Photo 3 of 3 : SP_2019_RD2098_247_10_20190311_00008.jpg



LM Start	7.63	Rating **	A/W	Issue No.	13
LM End	7.64	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.298300 °	38.298400 °
				-121.728800 °	-121.728800 °
DWR ID	DWR_RD2098_03_f_2017_13				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the waterside levee slope.					
Site ID No:450					
Site Designation:LMA-277					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/27/2017					
Notes: Sloughing on waterside due to waterside toe erosion.					

Photo 1 of 3 : SP_2019_RD2098_247_13_20190311_00009.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
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.63	Rating **	A/W	Issue No.	13 (cont)
LM End	7.64	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.298300 °	38.298400 °
				-121.728800 °	-121.728800 °
DWR ID	DWR_RD2098_03_f _ 2017_13				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:The damage consists of scour and sloughing of the waterside levee slope.					
Site ID No:450					
Site Designation:LMA-277					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/27/2017					
Notes: Sloughing on waterside due to waterside toe erosion.					

Photo 2 of 3 : SP_2019_RD2098_247_13_20190311_00010.jpg



Photo 3 of 3 : SP_2019_RD2098_247_13_20190311_00011.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
--	--	---	--	---

Levee Inspection Report By Mile - Spring 2019

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.66	Rating **	A/W	Issue No.	15
LM End	7.68	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			38.298700 °	38.299000 °
				-121.728700 °	-121.728600 °
DWR ID	DWR_RD2098_03_f_2017_15				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description: The damage consists of scour and sloughing of the lower and mid waterside levee slope.					
Site ID No:451					
Site Designation:LMA-278					
Repair Type: Erosion					
Rating:Area of Concern					
Field Date:7/27/2017					
Notes: Sloughing on waterside slope due to waterside toe erosion.					
Additional erosion seen on the spring 2019 inspection. Mitigate erosion then monitor site.					

View looking upstream at erosion at the storm damage site that has worsen over January and February of 2019 (Spring 2019).

LM Start	7.66	Rating **	A/W	Issue No.	15 (cont)
LM End	7.68	Issue Type +	Ma	Location *	

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.66	Rating **	A/W	Issue No.	15 (cont)	
LM End	7.68	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	2017 Storm Damage			38.298700 °	38.299000 °	
				-121.728700 °	-121.728600 °	
DWR ID	DWR_RD2098_03_f_2017_15					
Comment Code						
Inspector Comment						
Levee Evaluation Comments						
Description:The damage consists of scour and sloughing of the lower and mid waterside levee slope.						
Site ID No:451						
Site Designation:LMA-278						
Repair Type: Erosion						
Rating:Area of Concern						
Field Date:7/27/2017						
Notes: Sloughing on waterside slope due to waterside toe erosion.						
Additional erosion seen on the spring 2019 inspection. Mitigate erosion then monitor site.						

Photo 3 of 4 : SP_2019_RD2098_247_15_20190311_00013.jpg



Photo 4 of 4 : SP_2019_RD2098_247_15_20190311_00014.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
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.87	Rating **	M	Issue No.	9
LM End	7.87	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.301707 °	38.301707 °
				-121.728045 °	-121.728045 °
DWR ID	DWR_RD2098_03_s_2014_9				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Remove the fallen tree limb from the water side slope.					

Photo 1 of 1 : SP_2019_RD2098_247_9_20190311_00005.jpg



View of fallen tree limb on the water side slope (October 2018).

LM Start	8.05	Rating **	M	Issue No.	12
LM End	8.34	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 USACE Erosion Survey, DRAFT			38.304278 °	38.306705 °
				-121.727960 °	-121.732014 °
DWR ID	DWR_RD2098_03_f_2018_12				
Comment Code					
Inspector Comment					
2017 Site ID: HAS 8.4 L					
Status: Eroding New					
2017 Field Notes: Horizontal cracks; scour along toe; poorly constructed levee susceptible to erosion.					
Site History:					

No Photos

LM Start	8.07	Rating **	A/W	Issue No.	5
LM End	8.07	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Cracking			38.304553 °	38.304553 °
				-121.727853 °	-121.727853 °
DWR ID	DWR_RD2098_03_f_2018_5				
Comment Code					
CR1 : Monitor and have inspected by geotechnical engineer.					
Inspector Comment					
Cracks in waterside shoulder parallel to levee should be monitored for additional movement. Currently up to 2 inches wide and 50 feet long. Probed to 3.5 feet deep. Up to 1 inch of vertical offset observed on 10/26/17. No change as of 03/15/18.					

Photo 1 of 1 : SP_2019_RD2098_247_5_20190311_00004.jpg



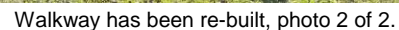
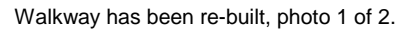
View upstream of cracks in waterside shoulder.

* 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	
--	--	---	--	---	--

Levee Inspection Report By Mile - Spring 2019

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	8.16	Rating **	A/W	Issue No.	17 (cont)
LM End	8.16	Issue Type +	Ma	Location *	



* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	8.16	Rating **	A/W	Issue No.	17 (cont)	
LM End	8.16	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			38.305462 °	38.305462 °	
				-121.728881 °	-121.728881 °	
DWR ID	20981					
Comment Code						
Inspector Comment						
FS_ID:51453 DS_ID:20981 EP_NO: 10174 Repair Type: No Action Needed Crossing Status: Found UCIP Comments: 12/22/2016 Crossing has been downgraded from Urgent to No Action Needed walkways on both WS and LS have been rebuilt and the WS gate has been upgraded to stainless steel where previous corrodable material was present. (O. Magana - DWR UCIP)03/19/2014 Current walkway to slidegate on WS toe does not provide safe access to operate slidegate. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 36-inch steel dual-purpose irrigation and drainage pipe through the levee, 26 feet below the crown. Two corrugated metal cutoff walls around the pipe. Walkway to the slide gate on the waterside (WS) end. Combination slide and flap gate on the landside (LS) end. 48-inch corrugated metal pipe (CMP) riser and an adjoining pump on a metal pier at the LS toe. (36-inch pipe [HLM 8.20] authorized under Automatic Board Order (ABO) issued as Permit No. 10174, 1974 - Glen A. Bowsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 8.20)]. FS Date: 12/22/2016						

Photo 3 of 3 : UCIP_SP_2019_51453_76859.jpg



View of levee crown at pipe crossing.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	8.35	Rating **	A/W	Issue No.	18
LM End	8.35	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility		38.306916 °	38.306916 °	
			-121.731984 °	-121.731984 °	
DWR ID	20962				
Comment Code					
Inspector Comment					
FS_ID:32384 DS_ID:20962 EP_NO: 10174 Repair Type: No Action Needed Crossing Status: Found UCIP Comments: FIELD_STRUCT_DESC: 60-inch corrugated metal drainage pipe through the levee, 25.5 feet below the crown. Walkway to the slide gates at both ends of the pipe. (Permit No. 1607, 1951 - R. F. Moore and Lorraine W. Zanetti. This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10174, 1974 - Glen A. Bowsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 8.40)]. FS Date: 3/19/2014					

Photo 1 of 2 : UCIP_SP_2019_32384_58883.jpg



Slide gate at LS toe.

LM Start	8.35	Rating **	A/W	Issue No.	18 (cont)
LM End	8.35	Issue Type +	Ma	Location *	

Photo 2 of 2 : UCIP_SP_2019_32384_58882.jpg



Walkway with slide gate on WS 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
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	8.36	Rating **	M	Issue No.	14
LM End	8.71	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.306970 °	38.311349 °
				-121.732007 °	-121.734760 °
DWR ID	DWR_RD2098_03_s_2019_14				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
Maintain vegetation on the crown					

Photo 1 of 1 : SP_2019_RD2098_247_14_20190326_00025.jpg



View looking upstream at annual vegetation on the crown (Spring 2019).

* 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**

Unit Cover Sheet

Spring 2019 Levee Inspection Results

Reclamation District No. 2098 Cache and Haas Slough

Waterway			Bank	Unit Miles
Unit No. 04 Back Levee			Left	2.95
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/26/2019 - 3/26/2019			
DWR Inspector	David Julian			
Accompanied By	Bryan Busch RD 2098			

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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	9.18	Rating **	A	Issue No.	10
LM End	9.77	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.316543 °	38.358110 °
				-121.740085 °	-121.740381 °
DWR ID	DWR_RD2098_04_s_2019_10				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
Vegetation well managed in this area.					

Photo 1 of 1 : SP_2019_RD2098_248_10_20190329_00026.jpg



View looking upstream at annual vegetation on the landside slope (Spring 2019).

LM Start	9.18	Rating **	A	Issue No.	11
LM End	12.07	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.316543 °	38.358110 °
				-121.740085 °	-121.740381 °
DWR ID	DWR_RD2098_04_s_2019_11				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					
Vegetation well managed in this area.					

Photo 1 of 1 : SP_2019_RD2098_248_11_20190329_00027.jpg



View looking upstream at vegetation on the waterside 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
--	--	---	--	---

Levee Inspection Report By Mile - Spring 2019

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

2017 Site ID: HAS 9.7 L
Status: Critical
2018: Some erosion about a third to half way up the slope the whole length. A couple pockets of deeper erosion into the slope. I would mark as unacceptable (Djulian).
2017 Field Notes: Upgraded to CRITICAL. Multiple slump on top of old slumping ; slump is into levee prism.
Site History: 2011 - Several scallops of erosion. Erosion primarily due to the weight of cattle on the slope. 2016 - Two new large scallop pockets in the middle of the site.

LM Start	9.44	Rating **	M	Issue No.	9 (cont)
LM End	9.74	Issue Type +	Ma	Location *	WS

A photograph showing a wide, calm body of water, likely a river or lake. The water is a dark, murky brown color. In the foreground, there is a grassy bank with some exposed dark soil or mud. On the opposite bank, there is a small, dense cluster of green trees or shrubs. The sky is not visible in the image. In the bottom right corner, there is a red date stamp that reads "08/08/2012".

A photograph showing a grassy riverbank. A small, dark tree stands on the bank near the water. The water is calm and reflects the sky. In the background, there are rolling green hills and a few distant trees. A date stamp '10-10-2009' is visible in the bottom right corner of the image.

View looking upstream at deep ruts in the waterside slope made by cows (Spring 2019).

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	9.44	Rating **	M	Issue No.	9 (cont)
LM End	9.74	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 USACE Erosion Survey, DRAFT			38.320240 °	38.324587 °
				-121.740183 °	-121.740254 °
DWR ID	DWR_RD2098_04_f_2018_9				
Comment Code					
Inspector Comment					
2017 Site ID: HAS 9.7 L Status: Critical 2018: Some erosion about a third to half way up the slope the whole length. A couple pockets of deeper erosion into the slope. I would mark as unacceptable (Djulian). 2017 Field Notes: Upgraded to CRITICAL. Multiple slump on top of old slumping ; slump is into levee prism. Site History: 2011 - Several scallops of erosion. Erosion primarily due to the weight of cattle on the slope. 2016 - Two new large scallop pockets in the middle of the site.					

Photo 3 of 3 : SP_2019_RD2098_248_9_20190408_00033.jpg



View looking downstream at worst section of the erosion on the waterside slope (Spring 2019).

LM Start	9.49	Rating **	M	Issue No.	18
LM End	9.49	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.321032 °	38.321032 °
				-121.740154 °	-121.740154 °
DWR ID	20983				
Comment Code					
Inspector Comment					
FS_ID:32383 DS_ID:20983 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 03/19/2014 need to verify status of gaslines in region with PG&E (888) 743-7431 Email: PipelineRequests@pge.com. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 4-inch gas line of an unknown material through the levee, 2 feet below the crown. Shutoff valve located 370 feet east of the levee crown. [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/19/2014					

Photo 1 of 2 : UCIP_SP_2019_32383_58881.jpg



Shutoff valve visible 370-feet off LS 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
--	--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	9.49	Rating **	M	Issue No.	18 (cont)	
LM End	9.49	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.321032 °	38.321032 °	
				-121.740154 °	-121.740154 °	
DWR ID	20983					
Comment Code						
Inspector Comment						
FS_ID:32383 DS_ID:20983 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 03/19/2014 need to verify status of gaslines in region with PG&E (888) 743-7431 Email: PipelineRequests@pge.com. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 4-inch gas line of an unknown material through the levee, 2 feet below the crown. Shutoff valve located 370 feet east of the levee crown. [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/19/2014						

Photo 2 of 2 : UCIP_SP_2019_32383_58880.jpg



Shutoff valve visible 370-feet off LS toe.

LM Start	10.02	Rating **	A/W	Issue No.	17
LM End	10.02	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			38.328368 °	38.328438 °
				-121.740617 °	-121.740612 °
DWR ID	DWR_RD2098_04_s_2017_17				
Comment Code					
S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.					
Inspector Comment					
Sloughing landside slope has been temporarily repaired at this specific location, but this area shows cracks along shoulder and should continue to be monitored.					

Photo 1 of 1 : SP_2019_RD2098_248_17_20190311_00002.jpg



Slumping landside slope should be monitored and repaired as needed.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	11.07	Rating **	M	Issue No.	19	
LM End	11.07	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.343608 °	38.343608 °	
				-121.740836 °	-121.740836 °	
DWR ID	20991					
Comment Code						
Inspector Comment						
FS_ID:32403 DS_ID:20991 EP_NO: 12851 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, suspended pipe with leaks was repaired in the summer of 2016. (O. Magana - DWR UCIP) 03/19/2014 Holes in pipe next to rail car bridge may indicate further deterioration of pipe through levee. Good candidate for video inspection. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 12-inch steel irrigation pipe through the levee, 2 feet below the crown. Cutoff wall around the pipe at the center of the levee. Siphon breaker on the landside (LS) toe at the canal. 1-inch polyvinyl chloride (PVC) electrical conduit at the same location (Permit No. 12851, 1980 - Bunker Ranch). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/19/2014						

LM Start	11.07	Rating **	M	Issue No.	19 (cont)
LM End	11.07	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_32403_58905.jpg



Pipe and siphon breaker visible on LS at canal crossing.

Photo 2 of 3 : UCIP_SP_2019_32403_58904.jpg



Pump on pier in irrigation canal off WS 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	
--	--	--	--	---	--	---	--

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	11.07	Rating **	M	Issue No.	19 (cont)	
LM End	11.07	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.343608 °	38.343608 °	
				-121.740836 °	-121.740836 °	
DWR ID	20991					
Comment Code						
Inspector Comment						
FS_ID:32403 DS_ID:20991 EP_NO: 12851 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA, suspended pipe with leaks was repaired in the summer of 2016. (O. Magana - DWR UCIP) 03/19/2014 Holes in pipe next to rail car bridge may indicate further deterioration of pipe through levee. Good candidate for video inspection. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 12-inch steel irrigation pipe through the levee, 2 feet below the crown. Cutoff wall around the pipe at the center of the levee. Siphon breaker on the landside (LS) toe at the canal. 1-inch polyvinyl chloride (PVC) electrical conduit at the same location (Permit No. 12851, 1980 - Bunker Ranch). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 3/19/2014						

Photo 3 of 3 : UCIP_SP_2019_32403_58903.jpg



Holes in pipe next to bridge. PVC electrical conduit shown.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	11.12	Rating **	M	Issue No.	20
LM End	11.12	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.344349 °	38.344349 °
				-121.740794 °	-121.740794 °
DWR ID	20995				
Comment Code					
Inspector Comment					
FS_ID:53380 DS_ID:20995 EP_NO: 17842 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/2/2018 Crossing downgraded to Non-Urgent due to reclassification of gas lines. Need to contact owner to determine current status of crossing (D. Sanoski - DWR UCIP).12/22/2016 same as previous inspection crossing remains Urgent due to unknown status of gas line--no markers present. According to LMA representative, RD 2068 issued a permit for a gas line however, the current status of this line is unknown. Permit issued by RD 2068 is 20040903. Need to contact owner to determine status of crossing. Markers will need to be installed per Title 23. (O. Magana - DWR UCIP)03/19/2014 No markers found. Need to contact owner to determine status and location. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 3-inch gas line of an unknown material bored under the levee and the channel, approximately 37 feet below the crown. (3-inch natural gas line authorized under Permit No. 17842, 2004 - Castle Minerals, Inc.). FS Date: 10/2/2018 4:32:00 PM					

Photo 1 of 1 : UCIP_SP_2019_53380_76889.jpg



View of levee crown and slopes through this section of the levee.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	12.05	Rating **	U	Issue No.	21
LM End	12.05	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.357841 °	38.357841 °
				-121.740396 °	-121.740396 °
DWR ID	20989				
Comment Code					
Inspector Comment					
FS_ID:53381 DS_ID:20989 EP_NO: 11564 Repair Type: Urgent Crossing Status: Found UCIP Comments: 10/2/2018 Same as last inspection; remaining as Urgent and recommend internal pipe inspection (D. Sanoski - DWR UCIP).12/06/2016 Crossing has been upgraded from Non-Urgent to Urgent due to sections of the wall missing on the LS. Crossing is also opened on both WS and LS. According to Mr. Mike Hardesty, this crossing is not abandoned the crossing is out of service for now. Recommend internal integrity inspection and coordinating with CVFPB to comply with Title 23. (O. Magana - DWR UCIP)03/19/2014 Pipe appears abandoned and if so should be done so properly. Pipe rusted through at outlet in canal. This may indicate further degradation of pipe within the levee. Good candidate for video inspection. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 18-inch steel drainage pipe through the levee, 2 feet below the crown. Steel cutoff wall around the pipe at the center of the levee. Siphon breaker on the apex of the pipe located on the landside (LS) shoulder. Pump missing from steel pump pad over a 4-foot by 4-foot concrete sump located on the waterside (WS) toe. (18-inch pipe authorized under Permit No. 11564, 1976 - Reclamation District No. 2068). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 10/2/2018 4:33:00 PM					

LM Start	12.05	Rating **	U	Issue No.	21 (cont)
LM End	12.05	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_53381_76867.jpg



Overview of levee crown at multiple pipe crossings.

Photo 2 of 3 : UCIP_SP_2019_53381_76872.jpg



View of WS photo taken from 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
--	--	---	--	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	12.05	Rating **	U	Issue No.	21 (cont)	
LM End	12.05	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.357841 °		38.357841 °
				-121.740396 °		-121.740396 °
DWR ID	20989					
Comment Code						
Inspector Comment						
FS_ID:53381 DS_ID:20989 EP_NO: 11564 Repair Type: Urgent Crossing Status: Found UCIP Comments: 10/2/2018 Same as last inspection; remaining as Urgent and recommend internal pipe inspection (D. Sanoski - DWR UCIP).12/06/2016 Crossing has been upgraded from Non-Urgent to Urgent due to sections of the wall missing on the LS. Crossing is also opened on both WS and LS. According to Mr. Mike Hardesty, this crossing is not abandoned the crossing is out of service for now. Recommend internal integrity inspection and coordinating with CVFPB to comply with Title 23. (O. Magana - DWR UCIP)03/19/2014 Pipe appears abandoned and if so should be done so properly. Pipe rusted through at outlet in canal. This may indicate further degradation of pipe within the levee. Good candidate for video inspection. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 18-inch steel drainage pipe through the levee, 2 feet below the crown. Steel cutoff wall around the pipe at the center of the levee. Siphon breaker on the apex of the pipe located on the landside (LS) shoulder. Pump missing from steel pump pad over a 4-foot by 4-foot concrete sump located on the waterside (WS) toe. (18-inch pipe authorized under Permit No. 11564, 1976 - Reclamation District No. 2068). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 10/2/2018 4:33:00 PM						

Photo 3 of 3 : UCIP_SP_2019_53381_76868.jpg



View of WS--pipe crossing is located on the right.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	12.05	Rating **	U	Issue No.	22
LM End	12.05	Issue Type +	En	Location *	
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		38.357863 °	38.357863 °	
			-121.740394 °	-121.740394 °	
DWR ID	20990				

Comment Code

Inspector Comment

FS_ID:53382
DS_ID:20990
EP_NO: 5426-A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 10/2/2018 Same as last inspection; remaining as Urgent and recommend internal pipe inspection (D. Sanoski - DWR UCIP). 12/06/2016 Crossing is opened on both WS and LS. Concrete box located on the LS has been removed. According to Mr. Mike Hardesty, this crossing is not abandoned the crossing is out of service for now. Recommend internal integrity inspection and coordinating with CVFPB to comply with Title 23. (O. Magana - DWR UCIP) 03/19/2014 Pipe appears abandoned and if so should be done so properly. Foundation for concrete distribution box on LS toe at canal has failed. Box has fallen into canal and LS slope has erosion at same location. Pipe open on both ends. (W. Wylie - DWR UCIP)
FIELD_STRUCT_DESC: 1 of 2: 18-inch coated steel drainage pipe through the levee, 3 feet below the crown. Vertical pump missing from steel platform over a 7-foot by 4-foot concrete box located on the waterside (WS) toe. Concrete cattle guard structure, 7 feet long, 15 feet wide, and 4 feet deep, located on the crown around the pipes. Discharge structure is located on the landside (LS) slope. (Permit No. 5426, 1966, and 5426-A, 1967 - Reclamation District No. 2068. Permit recordation indicates one 14-inch pipe and one 18-inch pipe to be installed). [Additional Reference(s): DWR Levee Log, 2003].
FS Date: 10/2/2018 4:51:00 PM

LM Start	12.05	Rating **	U	Issue No.	22 (cont)
LM End	12.05	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_53382_76875.jpg



Overview of levee crown at multiple pipe crossings.

Photo 2 of 3 : UCIP_SP_2019_53382_76876.jpg



View of LS--damaged concrete distribution box has been removed.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	12.05	Rating **	U	Issue No.	22 (cont)	
LM End	12.05	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.357863 °	38.357863 °	
				-121.740394 °	-121.740394 °	
DWR ID	20990					
Comment Code						
Inspector Comment						
FS_ID:53382 DS_ID:20990 EP_NO: 5426-A Repair Type: Urgent Crossing Status: Found UCIP Comments: 10/2/2018 Same as last inspection; remaining as Urgent and recommend internal pipe inspection (D. Sanoski - DWR UCIP).12/06/2016 Crossing is opened on both WS and LS. Concrete box located on the LS has been removed. According to Mr. Mike Hardesty, this crossing is not abandoned the crossing is out of service for now. Recommend internal integrity inspection and coordinating with CVFPB to comply with Title 23. (O. Magana - DWR UCIP)03/19/2014 Pipe appears abandoned and if so should be done so properly. Foundation for concrete distribution box on LS toe at canal has failed. Box has fallen into canal and LS slope has erosion at same location. Pipe open on both ends. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 1 of 2: 18-inch coated steel drainage pipe through the levee, 3 feet below the crown. Vertical pump missing from steel platform over a 7-foot by 4-foot concrete box located on the waterside (WS) toe. Concrete cattle guard structure, 7 feet long, 15 feet wide, and 4 feet deep, located on the crown around the pipes. Discharge structure is located on the landside (LS) slope. (Permit No. 5426, 1966, and 5426-A, 1967 - Reclamation District No. 2068. Permit recordation indicates one 14-inch pipe and one 18-inch pipe to be installed). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 10/2/2018 4:51:00 PM						

Photo 3 of 3 : UCIP_SP_2019_53382_58817.jpg



Concrete distribution box on LS slope has slipped into canal.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	12.05	Rating **	U	Issue No.	23	
LM End	12.05	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.357870 °	38.357870 °	
				-121.740396 °	-121.740396 °	
DWR ID	21013					
Comment Code						
Inspector Comment						
FS_ID:53383 DS_ID:21013 EP_NO: 5426-A Repair Type: Urgent Crossing Status: Found UCIP Comments: 10/2/2018 Same as last inspection; remaining as Urgent and recommend internal pipe inspection (D. Sanoski - DWR UCIP).12/06/2016 Crossing is opened on both WS and LS. Concrete box located on the LS has been removed. According to Mr. Mike Hardesty, this crossing is not abandoned the crossing is out of service for now. Recommend internal integrity inspection and coordinating with CVFPB to comply with Title 23. (O. Magana - DWR UCIP)03/19/2014 Pipe appears abandoned and if so should be done so properly. Foundation for concrete distribution box on LS toe at canal has failed. Box has fallen into canal and LS slope has erosion at same location. Pipe open on both ends. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 2 of 2: 18-inch coated steel drainage pipe through the levee, 3 feet below the crown. Vertical pumps missing from steel pad over a 7-foot by 4-foot concrete sump located on the waterside (WS) toe. Concrete cattle guard structure, 7 feet long, 15 feet wide, and 4 feet deep, located on the crown around the pipes. Discharge structure is located on the landside (LS) slope. (Permit No. 5426, 1966, and 5426-A, 1967 - Reclamation District No. 2068. Permit recordation indicates one 14-inch pipe and one 18-inch pipe to be installed). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 10/2/2018 4:54:00 PM						

LM Start	12.05	Rating **	U	Issue No.	23 (cont)
LM End	12.05	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2019_53383_76883.jpg



Overview of levee crown at multiple crossings.

Photo 2 of 3 : UCIP_SP_2019_53383_76884.jpg



View of LS--damage distribution box noted in last inspection has been removed.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	12.05	Rating **	U	Issue No.	23 (cont)	
LM End	12.05	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.357870 °	38.357870 °	
				-121.740396 °	-121.740396 °	
DWR ID	21013					
Comment Code						
Inspector Comment						
FS_ID:53383 DS_ID:21013 EP_NO: 5426-A Repair Type: Urgent Crossing Status: Found UCIP Comments: 10/2/2018 Same as last inspection; remaining as Urgent and recommend internal pipe inspection (D. Sanoski - DWR UCIP).12/06/2016 Crossing is opened on both WS and LS. Concrete box located on the LS has been removed. According to Mr. Mike Hardesty, this crossing is not abandoned the crossing is out of service for now. Recommend internal integrity inspection and coordinating with CVFPB to comply with Title 23. (O. Magana - DWR UCIP)03/19/2014 Pipe appears abandoned and if so should be done so properly. Foundation for concrete distribution box on LS toe at canal has failed. Box has fallen into canal and LS slope has erosion at same location. Pipe open on both ends. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 2 of 2: 18-inch coated steel drainage pipe through the levee, 3 feet below the crown. Vertical pumps missing from steel pad over a 7-foot by 4-foot concrete sump located on the waterside (WS) toe. Concrete cattle guard structure, 7 feet long, 15 feet wide, and 4 feet deep, located on the crown around the pipes. Discharge structure is located on the landside (LS) slope. (Permit No. 5426, 1966, and 5426-A, 1967 - Reclamation District No. 2068. Permit recordation indicates one 14-inch pipe and one 18-inch pipe to be installed). [Additional Reference(s): DWR Levee Log, 2003]. FS Date: 10/2/2018 4:54:00 PM						

Photo 3 of 3 : UCIP_SP_2019_53383_76885.jpg



Inside view of pipe from LS.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	12.07	Rating **	M	Issue No.	24
LM End	12.07	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.358110 °	38.358110 °
				-121.740381 °	-121.740381 °
DWR ID	24845				
Comment Code					
Inspector Comment					
FS_ID:32566 DS_ID:24845 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/19/2014 Need to verify status with gas company and install signs. No permit identified for crossing, though it may be connected to a permitted line installed in RD 2068 under Permit No. 13490. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 6-inch coated steel gas line through the levee, 3 feet below the crown. Signs on the east side of the levee. Pipe visible on the downstream side of the roadway bridge. FS Date: 3/19/2014					

Photo 1 of 3 : UCIP_SP_2019_32566_59110.jpg



Pipe visible on South side of Bridge at Swan Road.

LM Start	12.07	Rating **	M	Issue No.	24 (cont)
LM End	12.07	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2019_32566_59109.jpg



Pipe visible on South side of Bridge at Swan Road.

* 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. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	12.07	Rating **	M	Issue No.	24 (cont)	
LM End	12.07	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.358110 °		38.358110 °
				-121.740381 °		-121.740381 °
DWR ID	24845					
Comment Code						
Inspector Comment						
FS_ID:32566 DS_ID:24845 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 03/19/2014 Need to verify status with gas company and install signs. No permit identified for crossing, though it may be connected to a permitted line installed in RD 2068 under Permit No. 13490. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 6-inch coated steel gas line through the levee, 3 feet below the crown. Signs on the east side of the levee. Pipe visible on the downstream side of the roadway bridge. FS Date: 3/19/2014						

Photo 3 of 3 : UCIP_SP_2019_32566_59108.jpg



Sign off LS toe on East side of canal.

* 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
--	---	---