

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2021

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/19/2021 03/19/2021	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
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/19/2021 03/19/2021	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					
There is erosion on the waterside slope.					

No Photos

LM Start	0.96	Rating **	A/W	Issue No.	19
LM End	0.96	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.315200 °	38.315100 °
				-121.694100 °	-121.694100 °
DWR ID	DWR_RD2098_01_s_2021_19				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
This was a 2017 Storm Damage site. The damage consists of cracking and sloughing of the lower landside levee slope. Site ID No:414 Site Designation:LMA-241 4/24/2020 Field Notes: Vegetation is to thick to see. Verify in fall when vegetation less.					

Photo 1 of 1 : LEVAL_SP_2021_414_3596.jpg



*** Location**
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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
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Unit No. 01 Yolo Bypass	Right	3.60	03/19/2021 03/19/2021	David Julian

LM Start	1.07	Rating **	M	Issue No.	16
LM End	1.55	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.313587 °	38.306640 °
				-121.693708 °	-121.693652 °
DWR ID	DWR_RD2098_01_f_2020_16				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

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					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
There is erosion at the waterside toe.					

Photo 1 of 1 : SP_2021_RD2098_244_18_20210301_00004.jpg



View of erosion.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/19/2021 03/19/2021	David Julian

LM Start	1.82	Rating **	M	Issue No.	1
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					

LM Start	1.82	Rating **	M	Issue No.	1 (cont)
LM End	1.82	Issue Type +	Ma	Location *	

Photo 1 of 3 : UCIP_SP_2021_32197_58662.jpg



Pipe on WS slope.

Photo 2 of 3 : UCIP_SP_2021_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 M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/19/2021 03/19/2021	David Julian

LM Start	1.82	Rating **	M	Issue No.	1 (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				

Photo 3 of 3 : UCIP_SP_2021_32197_58660.jpg



Erosion under pipe at WS toe.

LM Start	2.20	Rating **	A/W	Issue No.	15
LM End	2.24	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 USACE Erosion Survey			38.297232 °	38.296678 °
				-121.693200 °	-121.693223 °
DWR ID	DWR_RD2098_01_f_2018_15				
Comment Code					
Inspector Comment					
2017 Site ID: YOL 2.2 R					
Status: Eroding New					
2017 Field Notes: POTENTIALLY UNDER REPAIR; full landslide from levee crown down, revetment failure , additional slumping ds and slump cracks observed.					
Site History:					

No Photos

LM Start	2.29	Rating **	U	Issue No.	27
LM End	2.32	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.295900 °	38.295468 °
				-121.693500 °	-121.693619 °
DWR ID	LMA-248				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
This was a 2017 Storm Damage site. The damage consists of scour and sloughing of the waterside levee slope. Site ID No:421 Site Designation:LMA-248					

Photo 1 of 1 : SP_2021_RD2098_244_27_20210301_00007.jpg



View looking upstream at erosion in the waterside slope (Spring 2020).

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Reclamation District No. 2098 Cache and Haas Slough

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Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/19/2021 03/19/2021	David Julian

LM Start	2.99	Rating **	M	Issue No.	37
LM End	3.29	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.285700 °	38.281500 °
				-121.693500 °	-121.694300 °
DWR ID	LMA-259				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
This was a 2017 Storm Damage site. The damage consists of scour and sloughing of the waterside levee slope. Site ID No:432 Site Designation:LMA-259					

Photo 1 of 1 : SP_2021_RD2098_244_37_20210301_00011.jpg



View of erosion on the waterside slope. Photo was taken in 2017.

LM Start	3.13	Rating **	M	Issue No.	20
LM End	3.13	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.283800 °	38.283800 °
				-121.693618 °	-121.693618 °
DWR ID	DWR_RD2098_01_s_2020_20				
Comment Code					
TR : Tree or limb					
Inspector Comment					

Photo 1 of 1 : SP_2021_RD2098_244_20_20210301_00006.jpg



View of tree limb on the landside slope (Fall 2020).

* Location
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WS : Water Side
CR : Crown

** Rating
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U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type
Ma : Maintenance Deficiency
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Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01A Cross Levee	Right	0.53	03/19/2021 03/19/2021	David Julian

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			38.277410 °	38.275700 °
				-121.696280 °	-121.705596 °
DWR ID	DWR_RD2098_01A_s_2021_1				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2021_RD2098_245_1_20210323_00001.jpg



View of vegetation on the landside slope off in the distance (Spring 2021).

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/19/2021 03/19/2021	David Julian

LM Start	5.88	Rating **	U	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_f_2020_11				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
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_2021_RD2098_246_11_20210301_00002.jpg



View looking upstream at erosion into waterside slope (Fall 2020).

LM Start	6.17	Rating **	M	Issue No.	6
LM End	7.14	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.284926 °	38.292979 °
				-121.715326 °	-121.723396 °
DWR ID	DWR_RD2098_02_s_2021_6				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2021_RD2098_246_6_20210319_00023.jpg



View looking downstream at vegetation on the landside slope (Spring 2021).

LM Start	6.46	Rating **	U	Issue No.	15
LM End	6.48	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.288700 °	38.289061 °
				-121.717000 °	-121.716885 °
DWR ID	LMA-267				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
This was a 2017 Storm Damage site. The damage consists of scour of the lower and mid waterside levee slope. Site ID No:440 & 441 Site Designation:LMA-267 & LMA-268					

Photo 1 of 1 : SP_2021_RD2098_246_15_20210301_00004.jpg



View looking upstream at erosion into the waterside slope (Fall 2020).

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/19/2021 03/19/2021	David Julian

LM Start	6.64	Rating **	U	Issue No.	18
LM End	6.65	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.291300 °	38.291400 °
				-121.716100 °	-121.716000 °
DWR ID	LMA-269				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
This was a 2017 Storm Damage site. The damage consists of scour, cracking, instability, and sloughing of the waterside levee slope. Site ID No:442 Site Designation:LMA-269					

Photo 1 of 1 : SP_2021_RD2098_246_18_20210301_00005.jpg



View looking upstream at erosion into the waterside slope (Fall 2020).

LM Start	6.71	Rating **	M	Issue No.	2	
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_2021_33784_61162.jpg



Two slide gates in 7-foot diameter CMP riser on waterward slope.

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

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Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/19/2021 03/19/2021	David Julian

LM Start	6.71	Rating **	M	Issue No.	2 (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				

Photo 2 of 3 : UCIP_SP_2021_33784_61161.jpg



Inlet not visible on LS toe.

LM Start	6.71	Rating **	M	Issue No.	2 (cont)
LM End	6.71	Issue Type +	Ma	Location *	

Photo 3 of 3 : UCIP_SP_2021_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
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/19/2021 03/19/2021	David Julian

LM Start	6.72	Rating **	M	Issue No.	3	
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						

LM Start	6.72	Rating **	M	Issue No.	3 (cont)
LM End	6.72	Issue Type +	Ma	Location *	

Photo 1 of 3 : UCIP_SP_2021_32285_58749.jpg



Inlet not visible on LS toe.

Photo 2 of 3 : UCIP_SP_2021_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
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Unit No. 02 Cache Slough	Left	1.89	03/19/2021 03/19/2021	David Julian

LM Start	6.86	Rating **	M	Issue No.	12
LM End	6.86	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.292965 °	38.292965 °
				-121.718188 °	-121.718188 °
DWR ID	DWR_RD2098_02_s_2020_12				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Erosion at the top of the landside slope.					

Photo 1 of 1 : SP_2021_RD2098_246_12_20210301_00003.jpg



View looking upstream at erosion at the top of the landside slope (Spring 2020).

LM Start	7.24	Rating **	A/W	Issue No.	5	
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						

Photo 1 of 3 : UCIP_SP_2021_32303_58782.jpg



Pipe visible under new pipe on LS slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/19/2021 03/19/2021	David Julian

LM Start	7.24	Rating **	A/W	Issue No.	5 (cont)
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				

Photo 2 of 3 : UCIP_SP_2021_32303_58781.jpg



Pipe visible under new pipe on LS slope.

LM Start	7.24	Rating **	A/W	Issue No.	5 (cont)
LM End	7.24	Issue Type +	Ma	Location *	

Photo 3 of 3 : UCIP_SP_2021_32303_58780.jpg



Welded steel cap over LS end of pipe.

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

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2021

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/19/2021 03/19/2021	David Julian

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			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: POSSIBLY BEING FIXED BY RD; deep cracks along bank and toe, intermittent slump.					
Site History: 2011 - Large vertical erosion pockets and bank slumping.					
Includes three 2017 Storm Damage Sites.					
Sites 449, 450, & 451. LMA-276, LMA-277, LMA-278.					

Photo 1 of 1 : SP_2021_RD2098_247_7_20210301_00001.jpg



View looking upstream at erosion into the waterside slope (Fall 2020).

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			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

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

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2021

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/19/2021 03/19/2021	David Julian

LM Start	8.16	Rating **	A/W	Issue No.	2	
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						

LM Start	8.16	Rating **	A/W	Issue No.	2 (cont)
LM End	8.16	Issue Type +	Ma	Location *	

Photo 1 of 3 : UCIP_SP_2021_51453_76858.jpg



Walkway has been re-built, photo 1 of 2.

Photo 2 of 3 : UCIP_SP_2021_51453_76861.jpg



Walkway has been re-built, photo 2 of 2.

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

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2021

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/19/2021 03/19/2021	David Julian

LM Start	8.16	Rating **	A/W	Issue No.	2 (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				

Photo 3 of 3 : UCIP_SP_2021_51453_76859.jpg



View of levee crown at pipe crossing.

LM Start	8.35	Rating **	A/W	Issue No.	3
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. Bowlsbey).
 [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_2021_32384_58883.jpg



Slide gate at LS toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2021

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/19/2021 03/19/2021	David Julian

LM Start	8.35	Rating **	A/W	Issue No.	3 (cont)	
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					

Photo 2 of 2 : UCIP_SP_2021_32384_58882.jpg



Walkway with slide gate on WS toe.

LM Start	8.50	Rating **	U	Issue No.	4
LM End	9.07	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			38.308628 °	38.315222 °
				-121.733495 °	-121.739255 °
DWR ID	DWR_RD2098_03_s_2021_4				
Comment Code					
A2 : Repair the levee slope damaged by livestock and prevent large animal access.					
Inspector Comment					

Photo 1 of 1 : SP_2021_RD2098_247_4_20210319_00007.jpg



View of slope terracing caused by cattle on the landside slope (Spring 2021).

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

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2021

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/19/2021 03/19/2021	David Julian

LM Start	9.23	Rating **	M	Issue No.	11
LM End	9.57	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		38.317323 °	38.322120 °	
			-121.740064 °	-121.740163 °	
DWR ID	DWR_RD2098_04_s_2021_11				
Comment Code					
A2 : Repair the levee slope damaged by livestock and prevent large animal access.					
Inspector Comment					

Photo 1 of 1 : SP_2021_RD2098_248_11_20210319_00021.jpg



View of terracing due to cows on the landside slope (Spring 2021).

LM Start	9.28	Rating **	M	Issue No.	10
LM End	9.33	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		38.317940 °	38.318678 °	
			-121.740072 °	-121.740047 °	
DWR ID	DWR_RD2098_04_f_2019_10				
Comment Code					
A2 : Repair the levee slope damaged by livestock and prevent large animal access.					
Inspector Comment					

Photo 1 of 1 : SP_2021_RD2098_248_10_20210301_00002.jpg



View looking upstream at depressions in the landside slope due to cows (Fall 2020).

* 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**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2021

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/19/2021 03/19/2021	David Julian

LM Start	9.44	Rating **	U	Issue No.	9
LM End	9.74	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 USACE Erosion Survey			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					
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 1 of 1 : SP_2021_RD2098_248_9_20210301_00001.jpg



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

LM Start	11.08	Rating **	M	Issue No.	8
LM End	11.52	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.343782 °	38.350149 °
				-121.740817 °	-121.740705 °
DWR ID	DWR_RD2098_04_s_2021_8				
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