

**Flood Control Project Maintenance
Levee Inspections**
LMA District Cover Sheet
Spring 2018 Levee Inspection Results

Reclamation District No. 1602 Del Puerto

	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 2018 Levee Inspection Results

Reclamation District No. 1602 Del Puerto

Waterway			Bank	Unit Miles
Unit No. 01 San Joaquin River			Left	6.24
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/13/2018 - 3/13/2018			
DWR Inspector	Richard Willoughby			
Accompanied By	Tony Martinez RD 1602			

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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	0.00	Rating **	A	Issue No.	39
LM End	0.00	Issue Type +	Ma	Location *	N/A
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Operations & Maintenance Manuals				
DWR ID	DWR_RD1602_01_s _ 2012_39				
Comment Code					
Inspector Comment					
The LMA has all the O&M manuals.					

No Photos

LM Start	0.00	Rating **	A	Issue No.	77
LM End	0.00	Issue Type +	Ma	Location *	N/A
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Emergency Supplies & Equipment				
DWR ID	DWR_RD1602_01_s _ 2012_77				
Comment Code					
Inspector Comment					
The LMA has enough flood materials in case of an incident.					

No Photos

LM Start	0.00	Rating **	A	Issue No.	97
LM End	0.00	Issue Type +	Ma	Location *	N/A
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Flood Preparedness & Training				
DWR ID	DWR_RD1602_01_s _ 2012_97				
Comment Code					
Inspector Comment					
The LMA has solid understanding and most of them have flood preparedness training. They will have more training this year with other districts.					

No Photos

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	0.00	Rating **	C	Issue No.	1
LM End	0.11	Issue Type +	En	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.476560 °	37.477295 °
				-121.083862 °	-121.082087 °
DWR ID	DWR_RD1602_01_s _ 2012_1				
Comment Code					
BU : Building					
Inspector Comment					
Animal pens across levee crown. FIR #6301 was created for this issue. Animal pens was removed from levee crown.					

No Photos

LM Start	0.00	Rating **	M	Issue No.	40
LM End	6.23	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.476615 °	37.429124 °
				-121.083847 °	-121.029743 °
DWR ID	DWR_RD1602_01_s _ 2018_40				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	0.00	Rating **	M	Issue No.	55
LM End	6.23	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.476616 °	37.429116 °
				-121.083847 °	-121.029750 °
DWR ID	DWR_RD1602_01_s _ 2018_55				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	0.09	Rating **	M	Issue No.	60
LM End	0.11	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.477161°	37.477299°
				-121.082504°	-121.082084°
DWR ID	DWR_RD1602_01_s_2018_60				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_60_20180323_00100.jpg



Looking upstream at trees on landward slope.

LM Start	0.13	Rating **	M	Issue No.	73
LM End	6.23	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.477229 °	37.429111 °
				-121.081894 °	-121.029755 °
DWR ID	DWR_RD1602_01_s_2018_73				
Comment Code					
C3 : Add appropriate gravel or road base. Grade and compact.					
Inspector Comment					
Need to control veg. on levee crown and add appropriate gravel					

Photo 1 of 1 : SP_2018_RD1602_110_73_20180323_00101.jpg



Looking upstream of levee crown.

LM Start	0.14	Rating **	M	Issue No.	26
LM End	1.63	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.477291 °	37.477498 °
				-121.081613 °	-121.058624 °
DWR ID	DWR_RD1602_01_f_2017_26				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_26_20180307_00009.jpg



View of the waterside vegetation. Fall 2017

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	0.14	Rating **	M	Issue No.	27
LM End	1.63	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.477292 °	37.477499 °
				-121.081613 °	-121.058624 °
DWR ID	DWR_RD1602_01_f_2017_27				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_27_20180307_00010.jpg



View of the vegetation on the landside of the levee. Fall 2017

LM Start	0.18	Rating **	M	Issue No.	20
LM End	0.18	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.477575 °	37.477575 °
				-121.080943 °	-121.080943 °
DWR ID	DWR_RD1602_01_f_2016_20				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	0.20	Rating **	M	Issue No.	28
LM End	0.20	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.477706 °	37.477706 °
				-121.080674 °	-121.080674 °
DWR ID	DWR_RD1602_01_f_2015_28				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 2 : SP_2018_RD1602_110_28_20180307_00011.jpg



Updated picture of the rodent hole on the waterside of the levee during spring 2016 inspection.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	0.20	Rating **	M	Issue No.	28 (cont)	
LM End	0.20	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Animal Control			37.477706 °		37.477706 °
				-121.080674 °		-121.080674 °
DWR ID	DWR_RD1602_01_f_2015_28					
Comment Code						
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.						
Inspector Comment						

Photo 2 of 2 : SP_2018_RD1602_110_28_20180307_00012.jpg



A rodent hole was found on the waterside of the levee.

LM Start	0.26	Rating **	M	Issue No.	29
LM End	0.26	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.478138 °	37.478138 °
				-121.079810 °	-121.079810 °
DWR ID	DWR_RD1602_01_f_2017_29				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 2 : SP_2018_RD1602_110_29_20180307_00013.jpg



View of a rodent hole on the waterside of the levee. Fall 2017

LM Start	0.26	Rating **	M	Issue No.	29 (cont)
LM End	0.26	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : SP_2018_RD1602_110_29_20180323_00102.jpg



Looking at typical rodent holes on waterward slope. (Spring 2018)

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	0.58	Rating **	M	Issue No.	201
LM End	0.58	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.480176 °	37.480176 °
				-121.074736 °	-121.074736 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:22937 DS_ID:24681 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: No permit identified for this crossing. FIELD_STRUCT_DESC: Communications line of an unknown size or material through the levee, at an unknown depth. FS Date: 10/1/2013					

LM Start	0.58	Rating **	M	Issue No.	201 (cont)
LM End	0.58	Issue Type +	En	Location *	

Photo 1 of 3 : UCIP_SP_2018_22937_39050.jpg



Communication line access box on LS shoulder.

Photo 2 of 3 : UCIP_SP_2018_22937_39049.jpg



Communication line access box on LS 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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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	0.58	Rating **	M	Issue No.	201 (cont)	
LM End	0.58	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.480176 °	37.480176 °	
				-121.074736 °	-121.074736 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:22937 DS_ID:24681 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: No permit identified for this crossing. FIELD_STRUCT_DESC: Communications line of an unknown size or material through the levee, at an unknown depth. FS Date: 10/1/2013						

Photo 3 of 3 : UCIP_SP_2018_22937_39048.jpg



Communication line marker on LS shoulder.

LM Start	0.60	Rating **	M	Issue No.	70
LM End	0.71	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.479967 °	37.478514 °
				-121.074582 °	-121.073435 °
DWR ID	DWR_RD1602_01_s_2012_70				
Comment Code					
FE : Fence					
Inspector Comment					
Barbed wire fence along the landward toe.					

Photo 1 of 1 : SP_2018_RD1602_110_70_20180307_00044.jpg



View of barbed wire fence at landward toe 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
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	0.64	Rating **	M	Issue No.	30
LM End	0.64	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.479391 °	37.479391 °
				-121.074168 °	-121.074168 °
DWR ID	DWR_RD1602_01_f_2017_30				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_30_20180307_00014.jpg



View of rodent holes on the waterside slope of the levee. Fall 2017

LM Start	0.77	Rating **	A/W	Issue No.	202
LM End	0.77	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.477993 °	37.477993 °
				-121.072645 °	-121.072645 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51634 DS_ID:20216 EP_NO: N/A Repair Type: No Action Needed Crossing Status: Found UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to No Action Needed the debris blocking the outlet has been cleared. (O. Magana - DWR UCIP)10/01/2013 Flap gate blocked from functioning by soil buildup on WS toe. Soil should be cleared. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 30-inch square reinforced concrete box culvert through levee, 14.4 feet below crown. Concrete "U" headwall on the waterside (WS) and landside (LS) ends. Slide gate in 6-foot by 7-foot concrete surge box is located on the WS shoulder. Flap gate is located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 0.78), Drawing No. 7-4-1784]. FS Date: 11/18/2016					

Photo 1 of 3 : UCIP_SP_2018_51634_36723.jpg



Inlet 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	

Reclamation District No. 1602 Del Puerto

Concrete inlet on LS toe.

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.00	Rating **	M	Issue No.	36
LM End	1.00	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.478810 °	37.478810 °
				-121.068738 °	-121.068738 °
DWR ID	DWR_RD1602_01_s_2012_36				
Comment Code					
RA : Ramp					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_36_20180307_00018.jpg



View of the ramp on the crown. The picture was taken from crown looking downstream.

LM Start	1.00	Rating **	M	Issue No.	203
LM End	1.00	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.478816 °	37.478816 °
				-121.068780 °	-121.068780 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51636 DS_ID:20217 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to Non-Urgent a flap gate has been added to the WS but pipe is currently not connected to pump. According to Tony Martinez, LMA representative, this crossing is currently not in use. Owner will need to coordinate with CVFPB to obtain permit. (O. Magana - DWR UCIP)10/01/2013 Appears abandoned and if so should be done so properly. Flapgate missing. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: *ABANDONED* 1 of 2: 16-inch steel drainage pipe through levee, 17 feet below crown. Pumps on the pump platform are located on the landside (LS). Siphon breaker in 24-inch corrugated metal pipe (CMP) riser is located on the waterside (WS) shoulder. Concrete "U" headwall and flap gate are located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 1.01), Drawing No. 7-4-1784]. FS Date: 11/18/2016					

Photo 1 of 3 : UCIP_SP_2018_51636_36758.jpg



Pumping plant on LS toe. Pipe visible under walkway.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.00	Rating **	M	Issue No.	203 (cont)	
LM End	1.00	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			37.478816 °	37.478816 °	
				-121.068780 °	-121.068780 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51636 DS_ID:20217 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to Non-Urgent a flap gate has been added to the WS but pipe is currently not connected to pump. According to Tony Martinez, LMA representative, this crossing is currently not in use. Owner will need to coordinate with CVFPB to obtain permit. (O. Magana - DWR UCIP)10/01/2013 Appears abandoned and if so should be done so properly. Flapgate missing. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: *ABANDONED* 1 of 2: 16-inch steel drainage pipe through levee, 17 feet below crown. Pumps on the pump platform are located on the landside (LS). Siphon breaker in 24-inch corrugated metal pipe (CMP) riser is located on the waterside (WS) shoulder. Concrete "U" headwall and flap gate are located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 1.01), Drawing No. 7-4-1784]. FS Date: 11/18/2016						

LM Start	1.00	Rating **	M	Issue No.	203 (cont)
LM End	1.00	Issue Type +	Ma	Location *	

Photo 2 of 3 : UCIP_SP_2018_51636_36757.jpg



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

Photo 3 of 3 : UCIP_SP_2018_51636_36756.jpg



Siphon breaker in 24-inch 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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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.00	Rating **	M	Issue No.	204
LM End	1.00	Issue Type +	Ma	Location *	
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP LMA Responsibility		37.478817 °	37.478817 °	
			-121.068773 °	-121.068773 °	
DWR ID					

Comment Code

Inspector Comment

FS_ID:51637
DS_ID:20219
EP_NO: N/A
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to Non-Urgent a flap gate has been added to the WS. According to Tony Martinez, LMA representative, this crossing is currently not in use. Owner will need to coordinate with CVFPB to obtain permit. (O. Magana - DWR UCIP)10/01/2013 Appears abandoned siphon breakers covered in soil and flapgate missing. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: *ABANDONED* 2 of 2: 16-inch steel drainage pipe through levee, 17 feet below crown. Pump on pump platform located on the landside (LS). Siphon breaker in 24-inch riser located on the waterside (WS) shoulder. Concrete "U" headwall and flap gate are located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 1.01), Drawing No. 7-4-1784].
FS Date: 11/18/2016

LM Start	1.00	Rating **	M	Issue No.	204 (cont)
LM End	1.00	Issue Type +	Ma	Location *	

Photo 1 of 3 : UCIP_SP_2018_51637_36772.jpg



Pipe visible under walkway at puming plant on LS toe.

Photo 2 of 3 : UCIP_SP_2018_51637_36771.jpg



Siphon breaker covered in soil at CMP riser on WS shoulder.

* 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.00	Rating **	M	Issue No.	204 (cont)	
LM End	1.00	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			37.478817 °	37.478817 °	
				-121.068773 °	-121.068773 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51637						
DS_ID:20219						
EP_NO: N/A						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to Non-Urgent a flap gate has been added to the WS. According to Tony Martinez, LMA representative, this crossing is currently not in use. Owner will need to coordinate with CVFPB to obtain permit. (O. Magana - DWR UCIP)10/01/2013 Appears abandoned siphon breakers covered in soil and flapgate missing. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: *ABANDONED* 2 of 2: 16-inch steel drainage pipe through levee, 17 feet below crown. Pump on pump platform located on the landside (LS). Siphon breaker in 24-inch riser located on the waterside (WS) shoulder. Concrete "U" headwall and flap gate are located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 1.01), Drawing No. 7-4-1784].						
FS Date: 11/18/2016						

Photo 3 of 3 : UCIP_SP_2018_51637_36770.jpg



Concrete headwall on WS toe with missing flapgate.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.02	Rating **	U	Issue No.	205
LM End	1.02	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.478779 °	37.478779 °
				-121.068508 °	-121.068508 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:51329
DS_ID:20218
EP_NO: N/A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 11/18/2016 Same as previous inspection headwall on the WS toe has separated from pipe and flap gate is still missing. Erosion around concrete headwall and undermined WS slope are visible from WS. The slope undermined appears to have progressed but no photos were taken due to the dense vegetation covering area. According to Tony Martinez, LMA representative, the WS concrete headwall has been detached since 2008/2009. LMA has been in contact with CVFPB, DWR, and USACE regarding this site. (O. Magana - DWR UCIP)10/01/2013 Headwall on WS toe separated from pipe. Erosion around concrete headwall and undermined at WS toe. Flap gate missing from WS toe headwall. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 30-inch square reinforced concrete box culvert through levee, 25.4 feet below crown. Concrete "U" headwalls on both waterside (WS) and landside (LS) ends. Slide gate in concrete surge box located on the WS slope. A 5-foot by 5-foot concrete box is located on LS toe. Flap gate is located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 1.02), Drawing No. 7-4-1784]. FS Date: 11/18/2016

LM Start	1.02	Rating **	U	Issue No.	205 (cont)
LM End	1.02	Issue Type +	Ma	Location *	

Photo 1 of 3 : UCIP_SP_2018_51329_36786.jpg



Grated inlet and 5'X5' concrete box on LS toe.

Photo 2 of 3 : UCIP_SP_2018_51329_36785.jpg



Grated inlet at 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.02	Rating **	U	Issue No.	205 (cont)	
LM End	1.02	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			37.478779 °	37.478779 °	
				-121.068508 °	-121.068508 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51329 DS_ID:20218 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as previous inspection headwall on the WS toe has separated from pipe and flap gate is still missing. Erosion around concrete headwall and undermined WS slope are visible from WS. The slope undermined appears to have progressed but no photos were taken due to the dense vegetation covering area. According to Tony Martinez, LMA representative, the WS concrete headwall has been detached since 2008/2009. LMA has been in contact with CVFPB, DWR, and USACE regarding this site. (O. Magana - DWR UCIP)10/01/2013 Headwall on WS toe seperated from pipe. Erosion around concrete headwall and undermined at WS toe. Flap gate missing from WS toe headwall. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 30-inch square reinforced concrete box culvert through levee, 25.4 feet below crown. Concrete "U" headwalls on both waterside (WS) and landside (LS) ends. Slide gate in concrete surge box located on the WS slope. A 5-foot by 5-foot concrete box is located on LS toe. Flap gate is located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 1.02), Drawing No. 7-4-1784]. FS Date: 11/18/2016						

Photo 3 of 3 : UCIP_SP_2018_51329_36789.jpg



Slide gate in concrete riser next to shed on WS shoulder.

LM Start	1.05	Rating **	M	Issue No.	2
LM End	1.05	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.478567 °	37.478567 °
				-121.067847 °	-121.067847 °
DWR ID	RD1602U01RM97.68				
Comment Code					
Inspector Comment					
09/20/2017: The erosion was discovered during the spring levee inspection. The size of the erosion is roughly estimated due to dense vegetation at the site. [2017 Site ID:RD1602U01RM97.68]					

Photo 1 of 4 : SP_2018_RD1602_110_2_20180307_00002.jpg



Close view of the erosion. The erosion is covered by dense vegetation at the site.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.05	Rating **	M	Issue No.	2 (cont)	
LM End	1.05	Issue Type +	Ma	Location *	WS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR Erosion Survey			37.478567 °		37.478567 °
				-121.067847 °		-121.067847 °
DWR ID	RD1602U01RM97.68					
Comment Code						
Inspector Comment						
09/20/2017: The erosion was discovered during the spring levee inspection. The size of the erosion is roughly estimated due to dense vegetation at the site. [2017 Site ID:RD1602U01RM97.68]						

LM Start	1.05	Rating **	M	Issue No.	2 (cont)
LM End	1.05	Issue Type +	Ma	Location *	WS

Photo 2 of 4 : SP_2018_RD1602_110_2_20180307_00003.jpg



Close view of the erosion.

Photo 3 of 4 : SP_2018_RD1602_110_2_20180307_00004.jpg



Looking up at the erosion from the levee toe.

LM Start	1.05	Rating **	M	Issue No.	2 (cont)
LM End	1.05	Issue Type +	Ma	Location *	WS

Photo 4 of 4 : SP_2018_RD1602_110_2_20180307_00005.jpg



Close view of the erosion.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.13	Rating **	M	Issue No.	76
LM End	1.17	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.478317 °	37.478257 °
				-121.066562 °	-121.065761 °
DWR ID	DWR_RD1602_01_s _ 2018_76				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	1.19	Rating **	M	Issue No.	32
LM End	1.19	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.478347 °	37.478347 °
				-121.065361 °	-121.065361 °
DWR ID	DWR_RD1602_01_f _ 2017_32				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	1.25	Rating **	M	Issue No.	78
LM End	1.25	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.478614 °	37.478614 °
				-121.064490 °	-121.064490 °
DWR ID	DWR_RD1602_01_s _ 2018_78				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	1.57	Rating **	M	Issue No.	33
LM End	1.57	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.478113 °	37.478113 °
				-121.059287 °	-121.059287 °
DWR ID	DWR_RD1602_01_f_2017_33				
Comment Code					
PR : Prunings					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_33_20180307_00015.jpg



View of prunings on the landside of the levee.

LM Start	1.61	Rating **	M	Issue No.	43
LM End	2.27	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.477663 °	37.470264 °
				-121.058716 °	-121.054377 °
DWR ID	DWR_RD1602_01_s_2012_43				
Comment Code					
FE : Fence					
Inspector Comment					
Fence at the landside toe of the levee.					

Photo 1 of 1 : SP_2018_RD1602_110_43_20180307_00024.jpg



View of the fence on the landside toe of the levee. The picture was taken from crown looking upstream.

LM Start	1.65	Rating **	U	Issue No.	80
LM End	1.65	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.477218 °	37.477218 °
				-121.058505 °	-121.058505 °
DWR ID	DWR_RD1602_01_s_2018_80				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Broken tree branch on landward slope and toe.					

Photo 1 of 2 : SP_2018_RD1602_110_80_20180323_00103.jpg



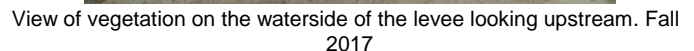
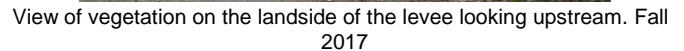
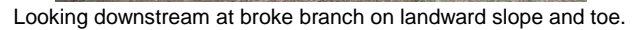
Looking at broken branch on landward slope and toe.

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

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

+ Issue Type
Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

Reclamation District No. 1602 Del Puerto



**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	2.03	Rating **	M	Issue No.	45
LM End	2.03	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.471734 °	37.471734 °
				-121.057670 °	-121.057670 °
DWR ID	DWR_RD1602_01_s_2012_45				
Comment Code					
EQ : Equipment					
Inspector Comment					
A well is present at the toe of the landside of the slope.					

Photo 1 of 1 : SP_2018_RD1602_110_45_20180307_00026.jpg



A well is located at the landside toe of the levee. The picture was taken from the crown looking toward the landside of the levee.

LM Start	2.23	Rating **	M	Issue No.	59
LM End	3.30	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.470119 °	37.461147 °
				-121.055117 °	-121.041785 °
DWR ID	DWR_RD1602_01_s_2012_59				
Comment Code					
DT : Ditch					
Inspector Comment					
Concrete ditch was constructed before the levee was built.					

Photo 1 of 1 : SP_2018_RD1602_110_59_20180307_00036.jpg



Concrete drain was built at the toe of the levee. The picture was taken from the crown looking upstream.

* 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	2.29	Rating **	M	Issue No.	79
LM End	2.29	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.470348 °	37.470348 °
				-121.053987 °	-121.053987 °
DWR ID	DWR_RD1602_01_s_2017_79				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	2.56	Rating **	M	Issue No.	81
LM End	2.56	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.469268 °	37.469268 °
				-121.049413 °	-121.049413 °
DWR ID	DWR_RD1602_01_s_2017_81				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_81_20180307_00047.jpg



View of a rodent hole on the waterside slope of the levee.

LM Start	2.67	Rating **	M	Issue No.	19
LM End	2.67	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.468212 °	37.468212 °
				-121.048096 °	-121.048096 °
DWR ID	DWR_RD1602_01_s_2016_19				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_19_20180307_00006.jpg



View of rodent holes on the waterside of the 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	2.79	Rating **	M	Issue No.	41
LM End	2.79	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.466887 °	37.466887 °
				-121.046460 °	-121.046460 °
DWR ID	DWR_RD1602_01_f_2016_41				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_41_20180307_00022.jpg



View of rodent holes on the waterside slope of the levee. Fall 2016

LM Start	2.82	Rating **	M	Issue No.	44
LM End	2.82	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.466645 °	37.466645 °
				-121.046148 °	-121.046148 °
DWR ID	DWR_RD1602_01_f_2016_44				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_44_20180307_00025.jpg



View of rodent holes on the landside of the levee.

LM Start	2.85	Rating **	M	Issue No.	46
LM End	2.85	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.466294 °	37.466294 °
				-121.045693 °	-121.045693 °
DWR ID	DWR_RD1602_01_f_2016_46				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

* 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	2.86	Rating **	M	Issue No.	47
LM End	2.86	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.466166 °	37.466166 °
				-121.045527 °	-121.045527 °
DWR ID	DWR_RD1602_01_f_2016_47				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_47_20180307_00027.jpg



View of rodent holes on the waterside of the levee. Fall 2016

LM Start	2.89	Rating **	M	Issue No.	49
LM End	2.89	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.465898 °	37.465898 °
				-121.045209 °	-121.045209 °
DWR ID	DWR_RD1602_01_f_2016_49				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_49_20180307_00029.jpg



View of rodent holes on the waterside slope of the levee. Spring 2017

LM Start	2.95	Rating **	M	Issue No.	51
LM End	2.95	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.465190 °	37.465190 °
				-121.044584 °	-121.044584 °
DWR ID	DWR_RD1602_01_f_2016_51				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_51_20180307_00031.jpg



View of a rodent hole on the waterside of the 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.16	Rating **	M	Issue No.	25
LM End	3.16	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.462947 °	37.462947 °
				-121.041967 °	-121.041967 °
DWR ID	DWR_RD1602_01_s_2016_25				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_25_20180307_00008.jpg



View of rodent holes on the waterside toe of the levee looking upstream.
Fall 2016

LM Start	3.27	Rating **	U	Issue No.	206
LM End	3.27	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.461507 °	37.461507 °
				-121.041609 °	-121.041609 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51330 DS_ID:20204 EP_NO: 8193 Repair Type: Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as previous inspection riser cover and handle on slide gate are still missing. Crossing remains Urgent due to the pubic safety issue of the 60-inch CMP cover still missing. According to Tony Martinez, LMA representative, the condition and future use of this crossing is being evaluated. Owner will need to coordinate with CVFPB for future use requirements or proper abandonment/removal. (O. Magana - DWR UCIP)10/01/2013 Appears abandoned, and if so should be done so properly. No handle on slide gate, no cover on CMP standpipe on WS shoulder. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 16-inch steel irrigation pipe through levee, 11.5 feet below crown. Slide gate in 60-inch corrugated metal pipe riser is located on the waterside (WS) slope. Pipe discharges into concrete-lined ditch on the landside (LS) (Permit No. 8193, 1964 - Sabatte). [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 0.58), Drawing No. 7-4-1784]. FS Date: 11/18/2016					

Photo 1 of 3 : UCIP_SP_2018_51330_36805.jpg



Pipe visible in concrete channel 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
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.27	Rating **	U	Issue No.	206 (cont)	
LM End	3.27	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.461507 °	37.461507 °	
				-121.041609 °	-121.041609 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51330 DS_ID:20204 EP_NO: 8193 Repair Type: Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as previous inspection riser cover and handle on slide gate are still missing. Crossing remains Urgent due to the pubic safety issue of the 60-inch CMP cover still missing. According to Tony Martinez, LMA representative, the condition and future use of this crossing is being evaluated. Owner will need to coordinate with CVFPB for future use requirements or proper abandonment/removal. (O. Magana - DWR UCIP)10/01/2013 Appears abandoned, and if so should be done so properly. No handle on slide gate, no cover on CMP standpipe on WS shoulder. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 16-inch steel irrigation pipe through levee, 11.5 feet below crown. Slide gate in 60-inch corrugated metal pipe riser is located on the waterside (WS) slope. Pipe discharges into concrete-lined ditch on the landside (LS) (Permit No. 8193, 1964 - Sabatte). [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 0.58), Drawing No. 7-4-1784]. FS Date: 11/18/2016						

LM Start	3.27	Rating **	U	Issue No.	206 (cont)
LM End	3.27	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2018_51330_36804.jpg



Slide gate in 60-inch CMP riser on WS shoulder.

Photo 3 of 3 : UCIP_SP_2018_51330_76527.jpg



Overview 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
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.30	Rating **	M	Issue No.	54
LM End	3.46	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.461147 °	37.459242 °
				-121.041785 °	-121.043582 °
DWR ID	DWR_RD1602_01_f_2013_54				
Comment Code					
DT : Ditch					
Inspector Comment					
Concrete lined ditch on the landside toe of the levee.					

Photo 1 of 1 : SP_2018_RD1602_110_54_20180307_00032.jpg



A concrete lined ditch was found on the landside toe of the levee looking upstream.

LM Start	3.32	Rating **	M	Issue No.	56
LM End	3.32	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.460811 °	37.460811 °
				-121.042078 °	-121.042078 °
DWR ID	DWR_RD1602_01_s_2017_56				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_56_20180307_00033.jpg



View of rodent holes on the landside of the levee. Fall 2016

LM Start	3.33	Rating **	M	Issue No.	53
LM End	3.49	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.460685 °	37.458892 °
				-121.042176 °	-121.043794 °
DWR ID	DWR_RD1602_01_f_2017_53				
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	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.34	Rating **	M	Issue No.	50
LM End	3.53	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.460644 °	37.458373 °
				-121.042231 °	-121.044081 °
DWR ID	DWR_RD1602_01_s_2012_50				
Comment Code					
DT : Ditch					
Inspector Comment					
A ditch is located on waterside toe of the levee.					

Photo 1 of 1 : SP_2018_RD1602_110_50_20180307_00030.jpg



A ditch was located on the waterside toe of the levee. The picture was taken from the crown looking upstream.

LM Start	3.43	Rating **	M	Issue No.	57
LM End	3.43	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.459552 °	37.459552 °
				-121.043279 °	-121.043279 °
DWR ID	DWR_RD1602_01_f_2017_57				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_57_20180307_00034.jpg



View of a rodent hole on the waterside of the levee.

LM Start	3.76	Rating **	M	Issue No.	83
LM End	3.76	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.455414 °	37.455414 °
				-121.043765 °	-121.043765 °
DWR ID	DWR_RD1602_01_s_2017_83				
Comment Code					
TR : Tree or limb					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_83_20180307_00048.jpg



View of a tree trunk on the waterside slope of the levee.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.82	Rating **	M	Issue No.	66
LM End	3.92	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.454611 °	37.453309 °
				-121.043193 °	-121.042191 °
DWR ID	DWR_RD1602_01_f_2013_66				
Comment Code					
FE : Fence					
Inspector Comment					
Fence,animal pen and other encroachments at landward toe.					

LM Start	3.82	Rating **	M	Issue No.	66 (cont)
LM End	3.92	Issue Type +	En	Location *	LS

Photo 1 of 3 : SP_2018_RD1602_110_66_20180307_00042.jpg



Fences were found on the landside toe of the levee looking upstream.

Photo 2 of 3 : SP_2018_RD1602_110_66_20180323_00105.jpg



Looking southwest at animal pens and other encroachments on landward toe. (Spring 2018)

LM Start	3.82	Rating **	M	Issue No.	66 (cont)
LM End	3.92	Issue Type +	En	Location *	LS

Photo 3 of 3 : SP_2018_RD1602_110_66_20180323_00106.jpg



Looking northwest at fence at landward toe. (Spring 2018)

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.82	Rating **	M	Issue No.	42
LM End	3.82	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.454574 °	37.454574 °
				-121.043142 °	-121.043142 °
DWR ID	DWR_RD1602_01_s_2012_42				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_42_20180307_00023.jpg



Remove landscaping from within 10' of landside toe.

LM Start	3.86	Rating **	U	Issue No.	207
LM End	3.86	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.454097 °	37.454097 °
				-121.042810 °	-121.042810 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51331 DS_ID:20206 EP_NO: 7796 Repair Type: Urgent Crossing Status: Indicator Found UCIP Comments: 11/18/2016 Same as previous inspection crossing is missing markers visible from levee crown. PG&E completed some construction work on this line from September - November 3rd, 2016 and installed a marker on WS approxiamtely 341 feet from levee crown. UCIP inspector will need to contact Mr. Chris Williams, Associate Construction Specialist, Gas Construction Management Central Valley Region with PG&E at 1-209-272-2811 to determine extent of inspection through levee. (O. Magana - DWR UCIP)10/01/2013 Gasline needs sign markers at levee. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 12.75-inch gas line crossing through levee, 3 feet below crown. Gas line is near Prune Avenue and Paradise Avenue. For emergencies call PG&E at 1-800-811-4111. (12.75-inch line authorized under Permit No. 7796, 1972 - Pacific Gas and Electric Company [PG&E], related permits include Permit No. 7796-A issued to amend plans to allow installing gas line under river by boring method, and Permit No. 7796-B issued to modify condition no. 18 by allowing work before July 20, 1972) [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 3.90), Drawing No. 7-4-1784]. FS Date: 11/18/2016					

Photo 1 of 3 : UCIP_SP_2018_51331_76534.jpg



Overview 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
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.86	Rating **	U	Issue No.	207 (cont)
LM End	3.86	Issue Type +	En	Location *	
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		37.454097 °	37.454097 °	
			-121.042810 °	-121.042810 °	
DWR ID					

Comment Code

Inspector Comment

FS_ID:51331
DS_ID:20206
EP_NO: 7796
Repair Type: Urgent
Crossing Status: Indicator Found
UCIP Comments: 11/18/2016 Same as previous inspection crossing is missing markers visible from levee crown. PG&E completed some construction work on this line from September - November 3rd, 2016 and installed a marker on WS approximately 341 feet from levee crown. UCIP inspector will need to contact Mr. Chris Williams, Associate Construction Specialist, Gas Construction Management Central Valley Region with PG&E at 1-209-272-2811 to determine extent of inspection through levee. (O. Magana - DWR UCIP)10/01/2013 Gasline needs sign markers at levee. (W. Wylie - DWR UCIP)
FIELD_STRUCT_DESC: 12.75-inch gas line crossing through levee, 3 feet below crown. Gas line is near Prune Avenue and Paradise Avenue. For emergencies call PG&E at 1-800-811-4111. (12.75-inch line authorized under Permit No. 7796, 1972 - Pacific Gas and Electric Company [PG&E], related permits include Permit No. 7796-A issued to amend plans to allow installing gas line under river by boring method, and Permit No. 7796-B issued to modify condition no. 18 by allowing work before July 20, 1972) [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 3.90), Drawing No. 7-4-1784].
FS Date: 11/18/2016

LM Start	3.86	Rating **	U	Issue No.	207 (cont)
LM End	3.86	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2018_51331_76535.jpg



View of LS.

Photo 3 of 3 : UCIP_SP_2018_51331_76536.jpg



PVC riser with yellow cover located along fence on LS.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.90	Rating **	A/W	Issue No.	18
LM End		Issue Type +	Ob	Location *	
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	2017 Storm Damage		37.453620 °		
			-121.042410 °		
DWR ID	DWR_RD1602_01_f_2017_18				
Comment Code					
Inspector Comment					
Levee Evaluation Comments					
Description:					
Site ID No:118					
Site Designation:190-FOC-1					
Repair Type: Seepage					
Rating:					
Field Date:					
Notes:					

No Photos

LM Start	3.90	Rating **	M	Issue No.	84
LM End	3.90	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		37.453566 °	37.453566 °	
			-121.042376 °	-121.042376 °	
DWR ID	DWR_RD1602_01_s_2017_84				
Comment Code					
Inspector Comment					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

Photo 1 of 1 : SP_2018_RD1602_110_84_20180307_00049.jpg



View of rodent holes on the waterside 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	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.93	Rating **	M	Issue No.	62
LM End	3.93	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.453216 °	37.453216 °
				-121.042127 °	-121.042127 °
DWR ID	DWR_RD1602_01_s_2012_62				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					
Significant damage to USACE constructed seepage berm due to human activity.					

Photo 1 of 1 : SP_2018_RD1602_110_62_20180307_00038.jpg



Repair damage to USACE constructed seepage berm by pedestrian and cycle traffic.

LM Start	3.94	Rating **	M	Issue No.	63
LM End	4.04	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.452983 °	37.451866 °
				-121.042301 °	-121.041206 °
DWR ID	DWR_RD1602_01_s_2012_63				
Comment Code					
FE : Fence					
Inspector Comment					
New fence on landward slope.					

Photo 1 of 2 : SP_2018_RD1602_110_63_20180307_00039.jpg



View of a barbed wire fence on the landward slope looking upstream.

LM Start	3.94	Rating **	M	Issue No.	63 (cont)
LM End	4.04	Issue Type +	En	Location *	LS

Photo 2 of 2 : SP_2018_RD1602_110_63_20180323_00107.jpg



Looking upstream at new fence on landward slope. (Spring 2018)

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	3.96	Rating **	M	Issue No.	85
LM End	3.96	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.452931 °	37.452931 °
				-121.041863 °	-121.041863 °
DWR ID	DWR_RD1602_01_s_2017_85				
Comment Code					
C1 : Add appropriate material and re-grade the levee to bring the crown above the design elevation.					
Inspector Comment					

No Photos

LM Start	3.98	Rating **	M	Issue No.	69
LM End	3.98	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.452640 °	37.452640 °
				-121.041646 °	-121.041646 °
DWR ID	DWR_RD1602_01_f_2016_69				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	4.02	Rating **	M	Issue No.	58
LM End	4.02	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.452118 °	37.452118 °
				-121.041306 °	-121.041306 °
DWR ID	DWR_RD1602_01_f_2017_58				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_58_20180307_00035.jpg



View of rodent holes on the waterside 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	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	4.03	Rating **	A/W	Issue No.	21
LM End		Issue Type +	Ob	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.451990 °	°
				-121.041240 °	°
DWR ID	DWR_RD1602_01_f_2017_21				
Comment Code					
Inspector Comment					
Levee Evaluation Comments Description: Site ID No:119 Site Designation:190-FOC-2 Repair Type: Seepage Rating: Field Date: Notes:					

No Photos

LM Start	4.13	Rating **	A/W	Issue No.	23
LM End	4.45	Issue Type +	Ob	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2017 Storm Damage			37.450930 °	37.446820 °
				-121.039990 °	-121.037840 °
DWR ID	DWR_RD1602_01_f_2017_23				
Comment Code					
Inspector Comment					
Levee Evaluation Comments Description: Site ID No:120 Site Designation:190-101 Repair Type: Seepage Rating: Field Date: Notes:					

No Photos

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	4.24	Rating **	M	Issue No.	71
LM End	4.24	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.449608 °	37.449608 °
				-121.038968 °	-121.038968 °
DWR ID	DWR_RD1602_01_f_2016_71				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	4.35	Rating **	M	Issue No.	88
LM End	4.35	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.448170 °	37.448170 °
				-121.038072 °	-121.038072 °
DWR ID	DWR_RD1602_01_s_2017_88				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_88_20180307_00050.jpg



View of a rodent hole on the waterside slope of the levee.

LM Start	4.42	Rating **	M	Issue No.	67
LM End	4.88	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.447213 °	37.441014 °
				-121.037665 °	-121.036932 °
DWR ID	DWR_RD1602_01_s_2012_67				
Comment Code					
FE : Fence					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_67_20180307_00043.jpg



View of the fence on the landside toe of the levee. The picture was taken from the crown looking upstream.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	4.47	Rating **	M	Issue No.	208 (cont)	
LM End	4.47	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			37.446545 °	37.446545 °	
				-121.037941 °	-121.037941 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51332 DS_ID:20207 EP_NO: 8195 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 11/18/2016 60-inch riser has a temporary cover therefore crossing has been downgraded from Urgent to Non-Urgent. (O. Magana - DWR UCIP) 10/01/2013 Lid missing from 60-inch CMP riser, may be an attractive nuisance or hazard to public. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 18-inch steel pipe through levee, 10 feet below crown. Slide gate in 60-inch corrugated metal pipe riser located on the waterside (WS) slope. Concrete discharge box is located on landside (LS) end. Pipe is buried across WS berm to pump located on the riverbank approximately 1,000 feet from the levee. (18-inch pipe authorized under Permit No. 8195, 1972 - Buehner). [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 4.51), Drawing No. 7-4-1784]. FS Date: 11/18/2016						

Photo 3 of 3 : UCIP_SP_2018_51332_36817.jpg



Concrete ditch at outlet from pipe on LS toe.

LM Start	4.47	Rating **	M	Issue No.	64
LM End	4.63	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.446485 °	37.444290 °
				-121.038037 °	-121.037953 °
DWR ID	DWR_RD1602_01_s_2012_64				
Comment Code					
DT : Ditch					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_64_20180307_00040.jpg



View of a ditch on the landside toe of the levee looking upstream.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	4.48	Rating **	M	Issue No.	90
LM End	4.48	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.446413 °	37.446413 °
				-121.037888 °	-121.037888 °
DWR ID	DWR_RD1602_01_s_2017_90				
Comment Code					
PR : Prunings					
Inspector Comment					

No Photos

LM Start	4.52	Rating **	M	Issue No.	35
LM End	4.52	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.445785 °	37.445785 °
				-121.037774 °	-121.037774 °
DWR ID	DWR_RD1602_01_s_2016_35				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_35_20180307_00017.jpg



View of an animal hole on the waterside shoulder of the levee looking downstream.

LM Start	4.55	Rating **	M	Issue No.	91
LM End	4.55	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.445402 °	37.445402 °
				-121.037706 °	-121.037706 °
DWR ID	DWR_RD1602_01_s_2017_91				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_91_20180307_00051.jpg



View of rodent holes on the waterside of the levee looking downstream. Spring 2017

* 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	4.60	Rating **	U	Issue No.	65
LM End	4.60	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.444666 °	37.444666 °
				-121.037748 °	-121.037748 °
DWR ID	DWR_RD1602_01_f_2017_65				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_65_20180307_00041.jpg



View of a rodent hole on the waterside of the levee. Fall 2017

LM Start	4.64	Rating **	M	Issue No.	68
LM End	5.23	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.444038 °	37.436190 °
				-121.037963 °	-121.036132 °
DWR ID	DWR_RD1602_01_f_2017_68				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

LM Start	4.67	Rating **	M	Issue No.	72
LM End	5.23	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.443719 °	37.436190 °
				-121.037902 °	-121.036135 °
DWR ID	DWR_RD1602_01_f_2017_72				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	4.77	Rating **	M	Issue No.	74
LM End	4.77	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.442465 °	37.442465 °
				-121.036947 °	-121.036947 °
DWR ID	DWR_RD1602_01_s_2015_74				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_74_20180307_00045.jpg



View of a rodent hole on the waterside toe of the levee.

LM Start	5.09	Rating **	M	Issue No.	199
LM End	5.09	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.438165 °	37.438165 °
				-121.037073 °	-121.037073 °
DWR ID	DWR_RD1602_01_s_2014_199				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_199_20180307_00053.jpg



Rodent holes were found on the waterside toe of the levee looking upstream.

LM Start	5.13	Rating **	M	Issue No.	92
LM End	5.13	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.437527 °	37.437527 °
				-121.036967 °	-121.036967 °
DWR ID	DWR_RD1602_01_s_2017_92				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_92_20180307_00052.jpg



View of a rodent hole on the waterside shoulder of the levee looking downstream.

* 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.18	Rating **	U	Issue No.	48
LM End	5.18	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.436785 °	37.436785 °
				-121.036593 °	-121.036593 °
DWR ID	DWR_RD1602_01_s_2016_48				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Rodent holes possibly worsen by dogs.					

Photo 1 of 1 : SP_2018_RD1602_110_48_20180307_00028.jpg



View of rodent holes on the waterside of the levee looking downstream.

LM Start	5.19	Rating **	M	Issue No.	209	
LM End	5.19	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP LMA Responsibility			37.436748 °		37.436748 °
				-121.036597 °		-121.036597 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51336 DS_ID:20208 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as previous inspection soil and debris prevent flap gate from properly fuctioning and slide gate won't close due to sediment build up. Crossing has been downgraded from Urgent to Non-Urgent due to no pipe or levee integrity issues observed during the site visit. Need to contact owner to determine status of crossing. If crossing is no longer in use owner will need to coordinate with CVFPB to properly abandon or remove according to Title 23 requirements. (O. Magana - DWR UCIP)10/01/2013 Soil and debris prevent flapgate from proper function. Slide gate won't close completely due to sediment buildup. CMP riser needs cover. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 24-inch steel pipe through levee, 11.6 feet below crown. Concrete headwall on the landside (LS) end. Concrete "U" headwall and flap gate located on the waterside (WS) end. Slide gate in 60-inch corrugated metal pipe (CMP) riser is located on the WS slope. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 5.23), Drawing No. 7-4-1784]. FS Date: 11/18/2016						

Photo 1 of 3 : UCIP_SP_2018_51336_36822.jpg



Slide gate in CMP riser on WS slope. Outlet visible under tree in background.

* 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.19	Rating **	M	Issue No.	209 (cont)	
LM End	5.19	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP LMA Responsibility			37.436748 °	37.436748 °	
				-121.036597 °	-121.036597 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:51336 DS_ID:20208 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Same as previous inspection soil and debris prevent flap gate from properly fuctioning and slide gate won't close due to sediment build up. Crossing has been downgraded from Urgent to Non-Urgent due to no pipe or levee integrity issues observed during the site visit. Need to contact owner to determine status of crossing. If crossing is no longer in use owner will need to coordinate with CVFPB to properly abandon or remove according to Title 23 requirements. (O. Magana - DWR UCIP)10/01/2013 Soil and debris prevent flapgate from proper function. Slide gate won't close completely due to sediment buildup. CMP riser needs cover. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 24-inch steel pipe through levee, 11.6 feet below crown. Concrete headwall on the landside (LS) end. Concrete "U" headwall and flap gate located on the waterside (WS) end. Slide gate in 60-inch corrugated metal pipe (CMP) riser is located on the WS slope. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 5.23), Drawing No. 7-4-1784]. FS Date: 11/18/2016						

LM Start	5.19	Rating **	M	Issue No.	209 (cont)
LM End	5.19	Issue Type +	Ma	Location *	

Photo 2 of 3 : UCIP_SP_2018_51336_36821.jpg



Flapgate in Concrete headwall on WS toe under tree.

Photo 3 of 3 : UCIP_SP_2018_51336_36820.jpg



Concrete headwall at inlet on 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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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.22	Rating **	U	Issue No.	52
LM End	5.22	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.436393 °	37.436393 °
				-121.036296 °	-121.036296 °
DWR ID	DWR_RD1602_01_s_2018_52				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Large rodent hole on waterward slope.					

Photo 1 of 1 : SP_2018_RD1602_110_52_20180323_00108.jpg



Looking at rodent hole and erosion around rodent hole on waterward slope.

LM Start	5.23	Rating **	A/W	Issue No.	210
LM End	5.23	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.436246 °	37.436246 °
				-121.036193 °	-121.036193 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:21665 DS_ID:20209 EP_NO: 8192 Repair Type: No Action Needed Crossing Status: Found UCIP Comments: FIELD_STRUCT_DESC: 1 of 2: 36-inch by 36-inch reinforced concrete box drainage culvert through the levee, 15.8 feet below the crown. Slide gate in a 6-foot by 7-foot concrete surge box on the waterside (WS) slope. 36-inch concrete pipes buried on both sides of the levee and connected to the reinforced concrete box culvert. Constructed through the levee section. (two 36-inch by 36-inch culvert [HLM 5.27] authorized under Automatic Board Order (ABO) issued as Permit No. 8192, 1972 - Stanislaus County). [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 13, April 1964, (HLM 5.27), Drawing No. 7-4-1784]. FS Date: 10/1/2013					

Photo 1 of 2 : UCIP_SP_2018_21665_36829.jpg



Shed with slide gate in Concrete 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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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.23	Rating **	A/W	Issue No.	210 (cont)	
LM End	5.23	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			37.436246 °	37.436246 °	
				-121.036193 °	-121.036193 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:21665 DS_ID:20209 EP_NO: 8192 Repair Type: No Action Needed Crossing Status: Found UCIP Comments: FIELD_STRUCT_DESC: 1 of 2: 36-inch by 36-inch reinforced concrete box drainage culvert through the levee, 15.8 feet below the crown. Slide gate in a 6-foot by 7-foot concrete surge box on the waterside (WS) slope. 36-inch concrete pipes buried on both sides of the levee and connected to the reinforced concrete box culvert. Constructed through the levee section. (two 36-inch by 36-inch culvert [HLM 5.27] authorized under Automatic Board Order (ABO) issued as Permit No. 8192, 1972 - Stanislaus County). [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 13, April 1964, (HLM 5.27), Drawing No. 7-4-1784]. FS Date: 10/1/2013						

Photo 2 of 2 : UCIP_SP_2018_21665_36828.jpg



Likely risers for pipe 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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Reclamation District No. 1602 Del Puerto

Reclamation District No. 1602 Del Puerto

Concrete outlet on WS toe.

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.24	Rating **	A/W	Issue No.	212 (cont)	
LM End	5.24	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP LMA Responsibility			37.436129 °	37.436129 °	
				-121.036065 °	-121.036065 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:21672						
DS_ID:20210						
EP_NO: N/A						
Repair Type: No Action Needed						
Crossing Status: Found						
UCIP Comments:						
FIELD_STRUCT_DESC: 30-inch by 30-inch reinforced concrete box drainage culvert through the levee, 12.9 feet below the crown. Slide gate in a concrete surge box on the waterside (WS) slope. Concrete discharge boxes on both ends. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 13, April 1964, (HLM 5.28), Drawing No. 7-4-1784].						
FS Date: 10/1/2013						

Photo 3 of 3 : UCIP_SP_2018_21672_36846.jpg



Concrete inlet on LS toe.

LM Start	5.24	Rating **	U	Issue No.	82
LM End	5.35	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.436099 °	37.434760 °
				-121.036002 °	-121.035092 °
DWR ID	DWR_RD1602_01_s_2018_82				
Comment Code					
MA : Material					
Inspector Comment					
Farmer or Landowner pile earthen material against landward toe.					

Photo 1 of 3 : SP_2018_RD1602_110_82_20180323_00109.jpg



Looking southwest at earthen material pile on landward toe.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.24	Rating **	U	Issue No.	82 (cont)	
LM End	5.35	Issue Type +	En	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			37.436099 °		37.434760 °
				-121.036002 °		-121.035092 °
DWR ID	DWR_RD1602_01_s_2018_82					
Comment Code						
MA : Material						
Inspector Comment						
Farmer or Landowner pile earthen material against landward toe.						

Photo 2 of 3 : SP_2018_RD1602_110_82_20180323_00110.jpg



Looking north at earthen material pile on landward toe.

LM Start	5.24	Rating **	U	Issue No.	82 (cont)
LM End	5.35	Issue Type +	En	Location *	LS

Photo 3 of 3 : SP_2018_RD1602_110_82_20180323_00111.jpg



Looking at earthen material pile on landward slope.

LM Start	5.29	Rating **	U	Issue No.	75
LM End	5.91	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.435555 °	37.432716 °
				-121.035362 °	-121.026134 °
DWR ID	DWR_RD1602_01_s_2012_75				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

Photo 1 of 2 : SP_2018_RD1602_110_75_20180307_00046.jpg



Vegetation was found on the waterside slope of the levee looking upstream during fall 2016 inspection.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.29	Rating **	U	Issue No.	75 (cont)	
LM End	5.91	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			37.435555 °		37.432716 °
				-121.035362 °		-121.026134 °
DWR ID	DWR_RD1602_01_s_2012_75					
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment						

Photo 2 of 2 : SP_2018_RD1602_110_75_20180323_00112.jpg



Looking at upstream at dense vegetation on waterward slope. (Spring 2018)

LM Start	5.35	Rating **	M	Issue No.	61
LM End	6.22	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.434732 °	37.429165 °
				-121.035088 °	-121.029682 °
DWR ID	DWR_RD1602_01_s_2012_61				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_61_20180307_00037.jpg



Vegetation was obstructing the view of the landside of the levee.

LM Start	5.38	Rating **	M	Issue No.	22
LM End	5.44	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.434447 °	37.433791 °
				-121.034865 °	-121.034000 °
DWR ID	DWR_RD1602_01_f_2012_22				
Comment Code					
FE : Fence					
Inspector Comment					

Photo 1 of 1 : SP_2018_RD1602_110_22_20180307_00007.jpg



A fence was found on the landside toe of the levee 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 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.46	Rating **	M	Issue No.	213
LM End	5.46	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.433646 °	37.433646 °
				-121.033846 °	-121.033846 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:21674 DS_ID:20211 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe appears abandoned and if so should be done so properly. FIELD_STRUCT_DESC: *ABANDONED* 12-inch drainage pipe of an unknown material through the levee, 6.9 feet below the crown. Flap gate on the waterside (WS) end. Could not locate, March 1984. (Reclamation District No. 1602). [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 13, April 1964, (HLM 5.50), Drawing No. 7-4-1784]. FS Date: 10/1/2013					

Photo 1 of 1 : UCIP_SP_2018_21674_36854.jpg



Pipe and flapgate visible 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
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Reclamation District No. 1602 Del Puerto

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	5.72	Rating **	M	Issue No.	214 (cont)
LM End	5.72	Issue Type +	Ma	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP LMA Responsibility			37.433003 °	37.433003 °
				-121.029346 °	-121.029346 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:51337 DS_ID:20212 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 11/18/2016 Crossing has been downgraded from Urgent to Non-Urgent flap gate is functional. Recommend clearing dense vegetation from WS and LS slopes. (O. Magana - DWR UCIP)10/01/2013 Flapgate has minor blockage preventing gate from fully closing. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 30-inch square reinforced concrete box culvert through levee, 9 feet below crown. Slide gate in concrete surge box is located on the waterside (WS) slope. Concrete "U" headwalls are located on both the waterside (WS) and landside (LS) ends. Flap gate is located on the WS end. [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin River O&M Manual Unit 13, April 1964, (HLM 5.28), Drawing No. 7-4-1784]. FS Date: 11/18/2016					

Photo 3 of 3 : UCIP_SP_2018_51337_36876.jpg



Concrete U-shaped headwall on LS toe.

LM Start	6.13	Rating **	U	Issue No.	86
LM End	6.13	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.430181 °	37.430181 °
				-121.028679 °	-121.028679 °
DWR ID	DWR_RD1602_01_s_2018_86				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					
Cactus blocking view of waterward slope.					

Photo 1 of 1 : SP_2018_RD1602_110_86_20180323_00113.jpg



Looking south at dense cactus 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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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	6.24	Rating **	M	Issue No.	215
LM End	6.24	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			37.429032 °	37.429032 °
				-121.029867 °	-121.029867 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:21683 DS_ID:20214 EP_NO: 8194 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe heavily deteriorated on LS toe. May indicate condition of rest of pipe is bad. Good candidate for video inspection. FIELD_STRUCT_DESC: 18-inch reinforced concrete irrigation pipe through the levee, 3 feet below the crown. Slide gate in a 36-inch concrete standpipe on the waterside (WS) shoulder. (Permit No. 8194, 1972 - Ernest F. Nunes). [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 13, April 1964, (HLM 6.28), Drawing No. 7-4-1784]. FS Date: 10/1/2013					

Photo 1 of 3 : UCIP_SP_2018_21683_36882.jpg



Drainage/irrigation canal on LS toe.

LM Start	6.24	Rating **	M	Issue No.	215 (cont)
LM End	6.24	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2018_21683_36881.jpg



36-inch concrete standpipe on WS shoulder.

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

Levee Inspection Report By Mile - Spring 2018

Reclamation District No. 1602 Del Puerto

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	6.24	03/13/2018 03/13/2018	Richard Willoughby

LM Start	6.24	Rating **	M	Issue No.	215 (cont)	
LM End	6.24	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			37.429032 °	37.429032 °	
				-121.029867 °	-121.029867 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:21683 DS_ID:20214 EP_NO: 8194 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe heavily deteriorated on LS toe. May indicate condition of rest of pipe is bad. Good candidate for video inspection. FIELD_STRUCT_DESC: 18-inch reinforced concrete irrigation pipe through the levee, 3 feet below the crown. Slide gate in a 36-inch concrete standpipe on the waterside (WS) shoulder. (Permit No. 8194, 1972 - Ernest F. Nunes). [Additional Reference(s): DWR Levee Log, 1992. USACE San Joaquin O&M Manual 13, April 1964, (HLM 6.28), Drawing No. 7-4-1784]. FS Date: 10/1/2013						

Photo 3 of 3 : UCIP_SP_2018_21683_36880.jpg



Pipe deteriorated on LS at outlet.

* 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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