

**Flood Control Project Maintenance
Levee Inspections
LMA District Cover Sheet
Spring 2016 Levee Inspection Results**

Knights Landing Ridge Drainage District

	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 2016 Levee Inspection Results

Knights Landing Ridge Drainage District

Waterway		Bank	Unit Miles
Unit No. 01 Knights Landing Ridge Cut		Right	6.36

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/18/2016 - 3/18/2016			
DWR Inspector	Jai Lor			
Accompanied By				

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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start		Rating **	A	Issue No.	3
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals			o	o
DWR ID	DWR_NA0008_01_s_2013_3				
Comment Code					
Inspector Comment					
District has levee O&M manuals.					

No Photos

LM Start		Rating **	A	Issue No.	8
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment			o	o
DWR ID	DWR_NA0008_01_s_2013_8				
Comment Code					
Inspector Comment					
District maintains a stockpile of flood fight response material.					

No Photos

LM Start		Rating **	A	Issue No.	9
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training			o	o
DWR ID	DWR_NA0008_01_s_2013_9				
Comment Code					
Inspector Comment					
District has written response plan and regular flood fight training.					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	0.00	Rating **	M	Issue No.	19
LM End	6.04	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.719047 °	38.789363 °	
			-121.664124 °	-121.722573 °	
DWR ID	DWR_NA0008_01_s_2016_19				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0008_256_19_20160407_00037.jpg



View of the vegetation on the landward side of the levee looking upstream. Spring 2016.

LM Start	0.00	Rating **	M	Issue No.	26
LM End	6.35	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.719047 °	38.792464 °	
			-121.664124 °	-121.726706 °	
DWR ID	DWR_NA0008_01_s_2016_26				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	0.28	Rating **	U	Issue No.	27
LM End	0.41	Issue Type +	Ob	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Seepage / Sandboils		38.722502 °	38.724168 °	
			-121.666613 °	-121.667892 °	
DWR ID	DWR_NA0008_01_s_2016_27				
Comment Code					
Inspector Comment					
Possible seepage. Could also be coming from the nearby ditch because of high water. Monitor site.					

Photo 1 of 1 : SP_2016_NA0008_256_27_20160407_00039.jpg



View of the seepage on the landward side of the levee looking upstream. Spring 2016.

LM Start	0.73	Rating **	C	Issue No.	16
LM End	0.73	Issue Type +	En	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.726906 °	38.726906 °	
			-121.672744 °	-121.672744 °	
DWR ID	DWR_NA0008_01_f_2015_16				
Comment Code					
DE : Debris					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	0.87	Rating **	M	Issue No.	36
LM End	0.87	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.727869 °	38.727869 °
				-121.674875 °	-121.674875 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:11064 DS_ID:19361 EP_NO: 9302 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe exposed on WS slope in trench may need to be backfilled to prevent erosion under pipe. FIELD_STRUCT_DESC: 20-inch steel irrigation pipe through the levee, 8.8 feet below the crown. Pump on steel pile structure at WS toe. Siphon breaker in 12-inch steel riser on LS slope. Possible butterfly valve at LS toe. (Permit No. 9302-Elliott 1974), Originally included in O+M manual (1953). FS Date: 4/5/2013					

Photo 1 of 2 : UCIP_SP_2016_11064_18426.jpg



Pump on pile at WS toe with pipe in open trench on LS slope.

LM Start	0.87	Rating **	M	Issue No.	36 (cont)
LM End	0.87	Issue Type +	En	Location *	WS

Photo 2 of 2 : UCIP_SP_2016_11064_18425.jpg



Siphon breaker in 12-inch steel riser on LS slope.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	1.15	Rating **	M	Issue No.	37
LM End	1.15	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.730275 °	38.730275 °
				-121.678975 °	-121.678975 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:11065 DS_ID:19362 EP_NO: 9305 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Slope on WS shoulder appears to be eroding at pipes exit from levee. 36-inch conc riser on LS is filled with mud. FIELD_STRUCT_DESC: 10-inch pipe through the levee, 5.8-feet below the crown. Pump at the waterward toe. 36-inch Concrete standpipe at the landward toe (Permit No. 9305-Bacchini). 5-inch steel-pipe sleeved through 10-inch pipe. Annular space Grouted. (Permit No. 6076-Bacchini). Originally included in O+M manual (1953). FS Date: 4/5/2013					

LM Start	1.15	Rating **	M	Issue No.	37 (cont)
LM End	1.15	Issue Type +	En	Location *	WS

Photo 1 of 2 : UCIP_SP_2016_11065_18429.jpg



Pump on WS shoulder overgrown and may be abandoned.

Photo 2 of 2 : UCIP_SP_2016_11065_18428.jpg



Erosion at pipes exit from levee on WS shoulder.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	1.20	Rating **	M	Issue No.	28
LM End	1.20	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.730835 °	38.730835 °	
			-121.679718 °	-121.679718 °	
DWR ID	DWR_NA0008_01_s_2016_28				
Comment Code					
PR : Prunings					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0008_256_28_20160407_00040.jpg



View of the pruning pile on the landward side of the levee looking upstream. Spring 2016.

LM Start	1.57	Rating **	M	Issue No.	29
LM End	1.57	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		38.735164 °	38.735164 °	
			-121.683843 °	-121.683843 °	
DWR ID	DWR_NA0008_01_s_2016_29				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0008_256_29_20160407_00041.jpg



View of the ruts on the crown of the levee looking downstream. Spring 2016.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	1.59	Rating **	M	Issue No.	40
LM End	1.59	Issue Type +	En	Location *	CR
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.735399 °	38.735399 °
				-121.684058 °	-121.684058 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13204 DS_ID:19363 EP_NO: 9302 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Space between 16-inch and 24-inch pipe should be grouted. There is no pump on stand at WS toe. FIELD_STRUCT_DESC: 24-inch steel pipe through the levee, 5.9-feet below the crown. 16-inch steel pipe sleeved through this pipe. No visible control valves. Pump on pile structure in stream. Siphon breaker on the landward slope. Discharges into concrete irrigation ditch off the landward toe (Permit No. 939, 1944). Also included in O+M manual (1953). FS Date: 4/5/2013					

LM Start	1.59	Rating **	M	Issue No.	40 (cont)
LM End	1.59	Issue Type +	En	Location *	CR

Photo 1 of 2 : UCIP_SP_2016_13204_21588.jpg



16-inch pipe sleeved through 24-inch pipe on WS slope.

Photo 2 of 2 : UCIP_SP_2016_13204_21590.jpg



Siphon breaker on LS slope.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	2.58	Rating **	C	Issue No.	17
LM End	2.58	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.747109 °	38.747109 °	
			-121.694426 °	-121.694426 °	
DWR ID	DWR_NA0008_01_f_2015_17				
Comment Code					
PI : Pipe					
Inspector Comment					
The pipe on the landward side of the levee is partially exposed by the farmer.					

No Photos

LM Start	2.58	Rating **	M	Issue No.	39
LM End	2.58	Issue Type +	En	Location *	LS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		38.747110 °	38.747110 °	
			-121.694415 °	-121.694415 °	
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:11067 DS_ID:19364 EP_NO: 9307 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Siphon breaker on LS burried or broken off and missing. FIELD_STRUCT_DESC: 1 of 2: 14-inch pipe through the levee, 5.4-feet below crown. Pump house on pile structure at the landward toe Siphon breaker on the landward slope. Service pole and anchor at landward toe (Permit No. 9307- Lowe). Originally included in O+M manual (1953). FS Date: 4/5/2013					

Photo 1 of 1 : UCIP_SP_2016_11067_18431.jpg



Pump and pipe 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
--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	2.58	Rating **	M	Issue No.	41
LM End	2.58	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.747204 °	38.747204 °
				-121.694440 °	-121.694440 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13205 DS_ID:19391 EP_NO: 9307 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Walkway to actuator slide gate is missing. No method of actuating slide gate. FIELD_STRUCT_DESC: 2 of 2: 4-foot x 4-foot concrete box culvert through the levee, 23 feet below the crown. Walkway to slide gate on the waterside end, concrete headwalls on both ends. Service pole and anchor at landward toe. Concrete headwalls on both ends (Permit No. 9307- Lowe). FS Date: 4/5/2013					

Photo 1 of 2 : UCIP_SP_2016_13205_21602.jpg



Slide gate and concrete headwall on WS toe.

LM Start	2.58	Rating **	M	Issue No.	41 (cont)
LM End	2.58	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_SP_2016_13205_21601.jpg



Concrete 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
--	---	---

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	2.68	Rating **	M	Issue No.	43
LM End	2.68	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.748524 °	38.748524 °
				-121.694788 °	-121.694788 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:41892 DS_ID:19383 EP_NO: 13164 Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: Need to contact owner to determine status of crossing and install markers if appropriate. FIELD_STRUCT_DESC: 4-inch steel natural gas collection pipe through the levee 2.8-feet below the crown. Pipe attached to downstream side of bridge. Design drawings available in permit. (Permit No. 13164, 1981) FS Date: 4/5/2013					

No Photos

LM Start	2.70	Rating **	M	Issue No.	18
LM End	2.70	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.748837 °	38.748837 °
				-121.694823 °	-121.694823 °
DWR ID	DWR_NA0008_01_f_2015_18				
Comment Code					
PI : Pipe					
Inspector Comment					
Portion of the pipe seems to be replaced and the abandoned pipe is left at the toe of the landward side of the levee.					

Photo 1 of 2 : SP_2016_NA0008_256_18_20160304_00007.jpg



The dark portion on the left pipe seems to have been replaced with a new pipe. Fall 2015.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	2.70	Rating **	M	Issue No.	18 (cont)
LM End	2.70	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.748837 °	38.748837 °
				-121.694823 °	-121.694823 °
DWR ID	DWR_NA0008_01_f_2015_18				
Comment Code					
PI : Pipe					
Inspector Comment					
Portion of the pipe seems to be replaced and the abandoned pipe is left at the toe of the landward side of the levee.					

Photo 2 of 2 : SP_2016_NA0008_256_18_20160304_00008.jpg



View of the abandoned pipe at the toe of levee on the landward side. Fall 2015.

LM Start	3.36	Rating **	M	Issue No.	2
LM End	3.44	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.758432 °	38.759332 °
				-121.695158 °	-121.696063 °
DWR ID	DWR_NA0008_01_s_2016_2				
Comment Code					
Inspector Comment					
2011 - Toe scour and bank slumping. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-5_R]					

No Photos

LM Start	3.50	Rating **	U	Issue No.	20
LM End	3.50	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.759910 °	38.759910 °
				-121.696920 °	-121.696920 °
DWR ID	DWR_NA0008_01_f_2015_20				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

Photo 1 of 2 : SP_2016_NA0008_256_20_20160304_00009.jpg



Deep erosion at the bottom of the waterside slope 3-4 foot cut. Fall 2013

* Location LS : Land Side 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	3.50	Rating **	U	Issue No.	20 (cont)
LM End	3.50	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.759910 °	38.759910 °
				-121.696920 °	-121.696920 °
DWR ID	DWR_NA0008_01_f_2015_20				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

Photo 2 of 2 : SP_2016_NA0008_256_20_20160304_00010.jpg



View of the erosion on the waterward side of the levee looking upstream. Fall 2015.

LM Start	3.78	Rating **	U	Issue No.	30
LM End	3.78	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.762886 °	38.762886 °
				-121.700406 °	-121.700406 °
DWR ID	DWR_NA0008_01_s_2016_30				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Hole is at the toe of the levee on the waterward side.					

Photo 1 of 1 : SP_2016_NA0008_256_30_20160407_00042.jpg



View of the erosion at the toe of the levee on the waterward side. Spring 2016.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	3.86	Rating **	M	Issue No.	31
LM End	3.86	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.763751 °	38.763751 °
				-121.701398 °	-121.701398 °
DWR ID	DWR_NA0008_01_s_2016_31				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Erosion at the toe of the levee. LMA is monitoring erosion with stakes.					

Photo 1 of 1 : SP_2016_NA0008_256_31_20160407_00043.jpg



View of the erosion at the toe of the levee on the waterward side. Spring 2016.

LM Start	3.88	Rating **	M	Issue No.	1
LM End	3.95	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.764037 °	38.764905 °
				-121.701434 °	-121.702074 °
DWR ID	DWR_NA0008_01_s_2016_1				
Comment Code					
Inspector Comment					
2011 - Toe erosion and erosion pockets from tree popouts. More tree popouts are expected due to the eroding toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-9_R]					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	4.28	Rating **	M	Issue No.	21
LM End	4.28	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		38.769608 °	38.769608 °	
			-121.703076 °	-121.703076 °	
DWR ID	DWR_NA0008_01_f_2015_21				
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_2016_NA0008_256_21_20160304_00011.jpg



View of the rodent holes on the waterward side of the levee looking upstream. Fall 2015.

LM Start	4.38	Rating **	M	Issue No.	22
LM End	4.88	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.771003 °	38.777404 °	
			-121.703413 °	-121.707412 °	
DWR ID	DWR_NA0008_01_f_2015_22				
Comment Code					
DT : Ditch					
Inspector Comment					
Ditch is at the levee toe on the landward side.					

Photo 1 of 1 : SP_2016_NA0008_256_22_20160304_00012.jpg



View of the ditch on the landward side of the levee looking upstream. Fall 2015.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	5.26	Rating **	C	Issue No.	23
LM End	5.26	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		38.781336°	38.781336°	
			-121.712368°	-121.712368°	
DWR ID	DWR_NA0008_01_f_2015_23				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

No Photos

LM Start	5.29	Rating **	M	Issue No.	32
LM End	5.29	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		38.781712°	38.781712°	
			-121.712819°	-121.712819°	
DWR ID	DWR_NA0008_01_s_2016_32				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0008_256_32_20160407_00044.jpg



View of the crown of the levee looking upstream. Spring 2016.

LM Start	5.77	Rating **	M	Issue No.	33
LM End	5.77	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.786638°	38.786638°	
			-121.719040°	-121.719040°	
DWR ID	DWR_NA0008_01_s_2016_33				
Comment Code					
PR : Prunings					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0008_256_33_20160407_00045.jpg



View of the pruning piles on the landward side of the levee looking upstream. Spring 2016.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	6.00	Rating **	M	Issue No.	42
LM End	6.00	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.788921 °	38.788921 °
				-121.721985 °	-121.721985 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:41068 DS_ID:19397 EP_NO: 5276 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe appears abandoned at this time. FIELD_STRUCT_DESC: 2 of 2: 20-inch steel irrigation pipe through the levee 4.9-feet below the crown. Vertical pump unit on pile structure in stream. Siphon breaker on the landward shoulder in 16-inch steel riser. Flap gate on the landward end. Discharges into irrigation ditch at the landward side. (Permit No. 5276-RD 730 replaced an 18-inch at this location). Steel plate welded over end of pipe at pump structure. FS Date: 4/5/2013					

Photo 1 of 2 : UCIP_SP_2016_41068_18643.jpg



Pump on steel structure at WS toe.

LM Start	6.00	Rating **	M	Issue No.	42 (cont)
LM End	6.00	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_SP_2016_41068_18642.jpg



Steel plate welded over pipe end at pump platform.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	6.06	Rating **	M	Issue No.	34
LM End	6.06	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		38.789539 °	38.789539 °	
			-121.722832 °	-121.722832 °	
DWR ID	DWR_NA0008_01_s_2016_34				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0008_256_34_20160407_00046.jpg



View of the erosion on the landward side of the levee looking upstream. Spring 2016.

LM Start	6.07	Rating **	M	Issue No.	7
LM End	6.34	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.789641 °	38.792433 °	
			-121.722958 °	-121.726463 °	
DWR ID	DWR_NA0008_01_s_2012_7				
Comment Code					
EQ : Equipment					
Inspector Comment					
Equipment are on the slope of the levee.					

Photo 1 of 2 : SP_2016_NA0008_256_7_20160304_00001.jpg



View of the equipment on the landward side of the levee looking upstream. Fall 2015.

LM Start	6.07	Rating **	M	Issue No.	7 (cont)
LM End	6.34	Issue Type +	En	Location *	LS

Photo 2 of 2 : SP_2016_NA0008_256_7_20160304_00002.jpg



A current view of the equipment on the levee slope. Spring 2014

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	6.12	Rating **	U	Issue No.	35
LM End	6.12	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Erosion / Bank Caving		38.790159°	38.790159°	
			-121.723549°	-121.723549°	
DWR ID	DWR_NA0008_01_s_2016_35				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
There are multiple erosions in the same area.					

Photo 1 of 3 : SP_2016_NA0008_256_35_20160407_00048.jpg



View of the erosion on the landward side of the levee looking upstream. Spring 2016.

LM Start	6.12	Rating **	U	Issue No.	35 (cont)
LM End	6.12	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : SP_2016_NA0008_256_35_20160407_00047.jpg



Erosion is located downstream from first erosion. Spring 2016.

LM Start	6.12	Rating **	U	Issue No.	35 (cont)
LM End	6.12	Issue Type +	Ma	Location *	LS

Photo 3 of 3 : SP_2016_NA0008_256_35_20160407_00049.jpg



There are multiple erosions in this area. Spring 2016.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	03/18/2016 03/18/2016	Jai Lor

LM Start	6.23	Rating **	M	Issue No.	24
LM End	6.23	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		38.791286 °	38.791286 °	
			-121.725034 °	-121.725034 °	
DWR ID	DWR_NA0008_01_f_2015_24				
Comment Code					
A1 : Exterminate rodents and backfill and compact or grout burrows.					
Inspector Comment					
Ground squirrels are seen in this area.					

Photo 1 of 1 : SP_2016_NA0008_256_24_20160304_00013.jpg



View of the rodent holes on the waterward side of the levee looking downstream. Fall 2015.

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

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Spring 2016 Levee Inspection Results

Knights Landing Ridge Drainage District

Waterway		Bank	Unit Miles
Unit No. 02 Knights Landing Ridge Cut		Left	6.03

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/18/2016 - 3/18/2016			
DWR Inspector	Jai Lor			
Accompanied By				

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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	0.00	Rating **	M	Issue No.	25
LM End	1.53	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.724273 °	38.739499 °	
			-121.665276 °	-121.685231 °	
DWR ID	DWR_NA0008_02_s_2016_25				
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.	12
LM End	5.94	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.724273 °	38.792707 °	
			-121.665276 °	-121.724092 °	
DWR ID	DWR_NA0008_02_s_2016_12				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0008_257_12_20160401_00028.jpg



View of the vegetation on the waterward side of the levee looking downstream. Spring 2016.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	0.99	Rating **	M	Issue No.	230
LM End	0.99	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.733120 °	38.733120 °
				-121.679383 °	-121.679383 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:11307 DS_ID:19370 EP_NO: 9320 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned as pump is missing from platform. FIELD_STRUCT_DESC: 16-inch steel pipe through the levee 2.8-feet below the crown. Discharges into 36-inch concrete standpipe at levee toe. Pump on steel pile structure in stream with metal walkway. Two service poles on the waterward slope. (Permit No. 9320-Pollock) Originally included in O+M manual 1953. FS Date: 4/9/2013					

Photo 1 of 2 : UCIP_SP_2016_11307_18708.jpg



Pipe at 36-inch Concrete standpipe on LS toe.

LM Start	0.99	Rating **	M	Issue No.	230 (cont)
LM End	0.99	Issue Type +	En	Location *	WS

Photo 2 of 2 : UCIP_SP_2016_11307_18707.jpg



Pump platform and walkway on WS toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	1.89	Rating **	U	Issue No.	229
LM End	1.89	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.743768 °	38.743768 °
				-121.689185 °	-121.689185 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:11306 DS_ID:19371 EP_NO: 9320 Repair Type: Urgent Crossing Status: Found UCIP Comments: Pipe at flap gate rusted through at WS toe. Flap gate does not function properly. FIELD_STRUCT_DESC: 1 of 2: 12-inch pipe through the levee, 4-feet below the crown. Flap gate on waterward end at concrete headwall, siphon breaker in 2-inch CM pipe riser on the landward shoulder. Vertical pump unit on concrete foundation in irrigation ditch at the LS toe. (Permit No. 9320-Pollock) Originally included in O+M manual 1953. FS Date: 4/9/2013					

Photo 1 of 2 : UCIP_SP_2016_11306_18706.jpg



12-inch pipe at concrete headwall on WS toe.

LM Start	1.89	Rating **	U	Issue No.	229 (cont)
LM End	1.89	Issue Type +	En	Location *	WS

Photo 2 of 2 : UCIP_SP_2016_11306_18705.jpg



Pipe rusted through at flap gate on WS toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	2.26	Rating **	M	Issue No.	232
LM End	2.26	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.748282 °	38.748282 °
				-121.692652 °	-121.692652 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:11304 DS_ID:19388 EP_NO: 15517 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Pipe alignment should be marked at levee crossing. FIELD_STRUCT_DESC: 8-inch natural gas pipeline through the levee 50-feet below the crown. (Permit No. 15517, 1991). Design drawings available in permit. FS Date: 4/9/2013					

No Photos

LM Start	2.28	Rating **	U	Issue No.	233
LM End	2.28	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.748505 °	38.748505 °
				-121.692697 °	-121.692697 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:41832 DS_ID:19386 EP_NO: 13164 Repair Type: Urgent Crossing Status: Indicator Found UCIP Comments: Need to have pipe located and marked properly if still in use. FIELD_STRUCT_DESC: 4-inch steel natural gas collection pipe through the levee 3.2-feet below the crown. (Permit No. 13164, 1981). Design drawings available in permit. FS Date: 4/9/2013					

Photo 1 of 1 : UCIP_SP_2016_41832_18700.jpg



Sign on LS shoulder may indicate location of pipe, or it may indicate where pipe crosses approach ramp to bridge.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	2.72	Rating **	M	Issue No.	2
LM End	2.93	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.754899 °	38.757925 °
				-121.692653 °	-121.693048 °
DWR ID	DWR_NA0008_02_s_2016_2				
Comment Code					
Inspector Comment					
2006 - The whole levee toe area is slowly slumping into the channel (creep) due to dewatering and poor slope soils. Occasional piping in the levee slope evident as well. Pistol-butted trees at the levee toe indicate slow retreat. 2011 - Multiple scallops throughout the site and slumping of the toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-0_L]					

No Photos

LM Start	2.98	Rating **	M	Issue No.	5
LM End	3.11	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.758587 °	38.760053 °
				-121.693359 °	-121.694686 °
DWR ID	DWR_NA0008_02_s_2016_5				
Comment Code					
Inspector Comment					
2006 - The whole levee toe area is slowly slumping into the channel (creep) due to dewatering and poor slope soils. Occasional piping in the levee slope evident as well. Pistol-butted trees at the levee toe indicate slow retreat. 2011 - Slumping of the levee toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-1_L]					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	3.60	Rating **	M	Issue No.	3
LM End	3.73	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.765522°	38.767336°
				-121.700608°	-121.701023°
DWR ID	DWR_NA0008_02_s_2016_3				
Comment Code					
Inspector Comment					
2011 - The toe has eroded away and there are a few scallops from bank slumping. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-7_L]					

No Photos

LM Start	3.62	Rating **	M	Issue No.	20
LM End	3.84	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.765745°	38.768934°
				-121.700604°	-121.701019°
DWR ID	DWR_NA0008_02_s_2016_20				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	4.02	Rating **	M	Issue No.	24
LM End	4.32	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.771607°	38.775541°
				-121.701599°	-121.703493°
DWR ID	DWR_NA0008_02_s_2016_24				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	4.30	Rating **	M	Issue No.	4
LM End	4.55	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.775271 °	38.778115 °
				-121.703685 °	-121.706195 °
DWR ID	DWR_NA0008_02_s_2016_4				
Comment Code					
Inspector Comment					
2011 - This site is the downstream section of the old KLR 5.3L site. Levee toe is slowly retreating. Cracking on top of the levee may indicate potential mass movement. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_4-7_L]					

No Photos

LM Start	4.35	Rating **	M	Issue No.	23
LM End	4.35	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.775988 °	38.775988 °
				-121.703887 °	-121.703887 °
DWR ID	DWR_NA0008_02_f_2015_23				
Comment Code					
TR : Tree or limb					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0008_257_23_20160304_00013.jpg



Perspective view of the fallen tree on the waterward side of the levee looking downstream. Fall 2015.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	4.59	Rating **	M	Issue No.	15
LM End	4.59	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.778773 °	38.778773 °	
			-121.706482 °	-121.706482 °	
DWR ID	DWR_NA0008_02_s_2014_15				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Tree may have been struck by lightning and split into 3 parts. Identified trees shall be removed and associated root balls and roots shall be appropriately removed since it threatens the integrity of the levee.					

Photo 1 of 2 : SP_2016_NA0008_257_15_20160304_00003.jpg



A cottonwood tree may have been struck by lightning. The tree is split into three parts. Spring 2014

LM Start	4.59	Rating **	M	Issue No.	15 (cont)
LM End	4.59	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : SP_2016_NA0008_257_15_20160304_00004.jpg



The cottonwood tree has broken and is on the waterward side of the levee. Fall 2015.

LM Start	4.61	Rating **	M	Issue No.	22
LM End	4.68	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.778985 °	38.779747 °	
			-121.706668 °	-121.707635 °	
DWR ID	DWR_NA0008_02_s_2016_22				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	4.72	Rating **	C	Issue No.	228
LM End	4.72	Issue Type +	Ob	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Cracking		38.780080 °	38.780080 °	
			-121.708137 °	-121.708137 °	
DWR ID	DWR_NA0008_02_f_2013_228				
Comment Code					
CR1 : Monitor and have inspected by geotechnical engineer.					
Inspector Comment					

No Photos

LM Start	4.76	Rating **	M	Issue No.	21
LM End	4.76	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Cracking		38.780496 °	38.780496 °	
			-121.708671 °	-121.708671 °	
DWR ID	DWR_NA0008_02_f_2015_21				
Comment Code					
CR1 : Monitor and have inspected by geotechnical engineer.					
Inspector Comment					
Dessication crack is 7 inches wide and 2 feet deep.					

Photo 1 of 1 : SP_2016_NA0008_257_21_20160304_00012.jpg



View of the dessication crack on the waterward side of the levee looking downstream. Fall 2015.

LM Start	4.79	Rating **	C	Issue No.	226
LM End	4.82	Issue Type +	Ob	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Cracking		38.780858 °	38.781102 °	
			-121.709093 °	-121.709385 °	
DWR ID	DWR_NA0008_02_f_2013_226				
Comment Code					
CR1 : Monitor and have inspected by geotechnical engineer.					
Inspector Comment					

No Photos

* Location LS : Land Side 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	4.79	Rating **	M	Issue No.	227
LM End	4.79	Issue Type +	Ob	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Cracking			38.780858 °	38.780858 °
				-121.709095 °	-121.709095 °
DWR ID	DWR_NA0008_02_f_2013_227				
Comment Code					
CR1 : Monitor and have inspected by geotechnical engineer.					
Inspector Comment					

Photo 1 of 2 : SP_2016_NA0008_257_227_20160304_00015.jpg



Another view of the cracking on the levee slope. Fall 2013

LM Start	4.79	Rating **	M	Issue No.	227 (cont)
LM End	4.79	Issue Type +	Ob	Location *	WS

Photo 2 of 2 : SP_2016_NA0008_257_227_20160304_00016.jpg



Cracking on levee slope 1-2 inches wide and 6 inches deep. Fall 2013

LM Start	5.01	Rating **	M	Issue No.	13
LM End	5.93	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.783126 °	38.792586 °
				-121.711929 °	-121.723967 °
DWR ID	DWR_NA0008_02_s_2016_13				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

* Location LS : Land Side 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/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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	5.36	Rating **	M	Issue No.	6
LM End	5.93	Issue Type +	Ma	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	2015 USACE Erosion Survey, DRAFT		38.786566 °	38.792395 °	
			-121.716724 °	-121.724091 °	
DWR ID	DWR_NA0008_02_s_2016_6				
Comment Code					
Inspector Comment					
2011 - This site is the upstream section of the old KLR 5.3L site. Levee toe is slowly retreating. Cracking on top of the levee may indicate potential mass movement. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_5-8_L]					

No Photos

LM Start	5.54	Rating **	M	Issue No.	17
LM End	5.54	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		38.788592 °	38.788592 °	
			-121.718902 °	-121.718902 °	
DWR ID	DWR_NA0008_02_f_2015_17				
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_2016_NA0008_257_17_20160304_00007.jpg



Perspective view of the slope damaged by rodent burrows on the landward side of the levee looking downstream. Fall 2015.

LM Start	5.54	Rating **	M	Issue No.	17 (cont)
LM End	5.54	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2016_NA0008_257_17_20160304_00008.jpg



The rodent hole does not seem to go through the levee. Fall 2015.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	5.66	Rating **	U	Issue No.	16
LM End	5.66	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		38.789794 °	38.789794 °	
			-121.720338 °	-121.720338 °	
DWR ID	DWR_NA0008_02_f_2015_16				
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_2016_NA0008_257_16_20160304_00005.jpg



There seems to be more than 2 cubic feet of material on the landward side of the levee. Fall 2015.

LM Start	5.66	Rating **	U	Issue No.	16 (cont)
LM End	5.66	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2016_NA0008_257_16_20160304_00006.jpg



Perspective view of the animal hole on the landward side of the levee looking downstream. Fall 2015.

LM Start	5.72	Rating **	M	Issue No.	19
LM End	5.72	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Animal Control		38.790385 °	38.790385 °	
			-121.721131 °	-121.721131 °	
DWR ID	DWR_NA0008_02_f_2015_19				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	5.79	Rating **	M	Issue No.	18
LM End	5.79	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.791169°	38.791169°	
			-121.722147°	-121.722147°	
DWR ID	DWR_NA0008_02_f_2015_18				
Comment Code					
DT : Ditch					
Inspector Comment					
Ditch is dug on the landside slope of the levee.					

Photo 1 of 3 : SP_2016_NA0008_257_18_20160304_00009.jpg



Perspective view of the ditch on the landward slope of the levee looking downstream. Fall 2015.

LM Start	5.79	Rating **	M	Issue No.	18 (cont)
LM End	5.79	Issue Type +	En	Location *	LS

Photo 2 of 3 : SP_2016_NA0008_257_18_20160304_00010.jpg



The ditch is dug onto the landward slope of the levee. Fall 2015.

LM Start	5.79	Rating **	M	Issue No.	18 (cont)
LM End	5.79	Issue Type +	En	Location *	LS

Photo 3 of 3 : SP_2016_NA0008_257_18_20160401_00027.jpg



View of the ditch on the landward slope of the levee. Spring 2016.

* 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 2016

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	03/18/2016 03/18/2016	Jai Lor

LM Start	5.93	Rating **	M	Issue No.	14
LM End	5.93	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		38.792586 °	38.792586 °	
			-121.723967 °	-121.723967 °	
DWR ID	DWR_NA0008_02_s_2016_14				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

No Photos

LM Start	5.94	Rating **	M	Issue No.	1
LM End	5.94	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.792735 °	38.792735 °	
			-121.724092 °	-121.724092 °	
DWR ID	DWR_NA0008_02_s_2012_1				
Comment Code					
CR : Crops					
Inspector Comment					
No access; strawberries are being grown landside levee slope and crown					

Photo 1 of 1 : SP_2016_NA0008_257_1_20160401_00026.jpg



View of the fence on the crown of the levee looking upstream. Spring 2016.

* 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
--	---	---