

**Flood Control Project Maintenance  
Levee Inspections**

**Fall 2015 Levee Maintenance Deficiency Summary Report  
Overall LMA & Unit Ratings, including USACE Erosion Survey**

**Sacramento River Basin**

MA0003 Sutter Maintenance Yard Maintenance Area 0003	Overall LMA Rating	Total LMA Miles						
	A	5.11						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	0.01		0.01	0.20%				
Trim / Thin Trees	0.01		0.01	0.20%				
Encroachments						0.01		
Animal Control	0.02		0.02	0.39%				
Slope Stability	0.01		0.01	0.20%				
Crown Surface / Depressions / Rutting	0.02		0.02	0.39%				
<i>Interior Drainage &amp; Piping Systems</i>								
Sluice / Slide Gates	0.01		0.01	0.20%				
<i>Supplemental</i>								
2015 USACE Erosion Survey, DRAFT	0.09		0.09	1.76%				
DWR UCIP Field Study					0.01	0.03		
<i>LMA Totals:</i>	0.17	0.00	0.17	3.33%	0.01	0.04	0.00	0.00

**Flood Control Project Maintenance  
Levee Inspections  
LMA District Cover Sheet  
Fall 2015 Levee Inspection Results**

**Sutter Maintenance Yard Maintenance Area 0003**

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			<b>A</b>	

\*\* 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**

**Fall 2015 Levee Inspection Results**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway		Bank	Unit Miles	
Unit No. 01 Feather River		Right	5.11	
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			A	
Date of Inspection	04/17/2015 - 04/17/2015		11/10/2015 - 11/10/2015	
DWR Inspector	Michael Pitta		Keith Millard	
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 - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start		Rating **	A	Issue No.	<b>4</b>
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Operations & Maintenance Manuals			°	°
DWR ID	DWR_MA0003_01_s_2013_4				
Action/Comments					
Inspector Comments: Sutter Yard has a copy of the O&M manuals.					

No Photos

LM Start		Rating **	A	Issue No.	<b>6</b>
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Emergency Supplies & Equipment			°	°
DWR ID	DWR_MA0003_01_s_2013_6				
Action/Comments					
Inspector Comments: The Sutter Yard has adequate flood fight supplies and equipment.					

No Photos

LM Start		Rating **	A	Issue No.	<b>7</b>
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Flood Preparedness & Training			°	°
DWR ID	DWR_MA0003_01_s_2013_7				
Action/Comments					
Inspector Comments: The Sutter Yard has received flood fight training.					

No Photos

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.05</b>	Rating **	M	Issue No.	<b>9</b>
LM End	<b>0.05</b>	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			38.897878 °	38.897878 °
				-121.617088 °	-121.617088 °
DWR ID	DWR_MA0003_01_s_2015_9				
Action/Comments					
Repair depressions or ruts in the crown or slope.					

No Photos

LM Start	<b>0.78</b>	Rating **	M	Issue No.	<b>140</b>
LM End	<b>0.78</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			38.903339 °	38.903339 °
				-121.606209 °	-121.606209 °
DWR ID	DWR_MA0003_01_f_2014_140				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. Inspector Comments: There is a rodent hole on the landward toe road approximately 6" in diameter.					

Photo 1 of 2 : FA\_2015\_MA0003\_195\_140\_20151106\_00010.jpg



This photo was taken from the landward levee slope near the toe road facing north looking at an approximately 6" rodent hole. Fall 2014.

LM Start	<b>0.78</b>	Rating **	M	Issue No.	<b>140 (cont)</b>
LM End	<b>0.78</b>	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : FA\_2015\_MA0003\_195\_140\_20151106\_00011.jpg



This is another photo of the rodent hole to show its relationship to to levee toe, toe road, and drainage ditch. Fall 2014.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.80</b>	Rating **	M	Issue No.	<b>5</b>
LM End	<b>0.80</b>	Issue Type +	Ma	Location *	LS
Category	Interior Drainage & Piping Systems		GPS Latitude/Longitude		
			Start	End	
Item	Sluice / Slide Gates		38.903291 °	38.903291 °	
			-121.605747 °	-121.605747 °	
DWR ID	DWR_MA0003_01_s_2012_5				
Action/Comments					
Inspector Comments: This pipe leaked during the high water event of 2010/2011.					

Photo 1 of 1 : FA\_2015\_MA0003\_195\_5\_20151106\_00001.jpg



Levee mile 0.80, this photo is looking at the landside toe, one of these pipes leaked during the high water event of 2010/2011. A flap gate prevents flow from the waterward side to the landward side of the levee.

LM Start	<b>0.81</b>	Rating **	U	Issue No.	<b>142</b>
LM End	<b>0.81</b>	Issue Type +	En	Location *	LS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	DWR UCIP Field Study		38.903264 °	38.903264 °	
			-121.605698 °	-121.605698 °	
DWR ID					
Action/Comments					
Inspector Comments: FS_ID:45165 DS_ID:17136 EP_NO: N/A FS_HLM: 0.804 Repair Type: Urgent Crossing Status: Found UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. 5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. 11/17/2014 Same as last inspection. FIELD_STRUCT_DESC: 2 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 05/14/2015					

Photo 1 of 3 : UCIP\_FA\_2015\_5303.jpg



Flap gates appear to be missing from U shaped headwall. Sandbags fill headwall but water flows heavily from LS.

<b>* Location</b> LS : Land Side WS : Water Side CR : Crown	<b>** Rating</b> A : Acceptable M : Minimally Acceptable U : Unacceptable	<b>+ Issue Type</b> 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 - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.81</b>	Rating **	U	Issue No.	<b>142 (cont)</b>
LM End	<b>0.81</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID					

Photo 2 of 3 : UCIP\_FA\_2015\_5304.jpg



**Action/Comments**

Inspector Comments: FS\_ID:45165  
 DS\_ID:17136  
 EP\_NO: N/A  
 FS\_HLM: 0.804  
 Repair Type: Urgent  
 Crossing Status: Found  
 UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. 5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. 11/17/2014 Same as last inspection.  
 FIELD\_STRUCT\_DESC: 2 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" headwall at the waterward toe. Originally included in O+M manual (1955).  
 FS Date: 05/14/2015

Concrete U shaped headwall on WS toe filled with sandbags.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.81</b>	Rating **	U	Issue No.	<b>142 (cont)</b>
LM End	<b>0.81</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID					

Photo 3 of 3 : UCIP\_FA\_2015\_5338.jpg



**Action/Comments**

Inspector Comments: FS\_ID:45165  
 DS\_ID:17136  
 EP\_NO: N/A  
 FS\_HLM: 0.804  
 Repair Type: Urgent  
 Crossing Status: Found

UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. 5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. 11/17/2014 Same as last inspection.

FIELD\_STRUCT\_DESC: 2 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" headwall at the waterward toe. Originally included in O+M manual (1955).  
 FS Date: 05/14/2015

Concrete headwall, slidegates, and metal walkway on LS toe.

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

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard Maintenance Area 0003

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	0.81	Rating **	U	Issue No.	143
LM End	0.81	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID					

Photo 1 of 3 : UCIP\_FA\_2015\_5300.jpg



Action/Comments					
Inspector Comments: FS_ID:45164 DS_ID:17091 EP_NO: 13624 FS_HLM: 0.804 Repair Type: Urgent Crossing Status: Found UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet.5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 Hole in slope along outside of standpipe thats about 1 foot deep with moisture in the bottom. Dirt inside standpipe around siphon breaker also wet indicating there may be a leak. Need to investigate source or moisture.10/30/2013 Same as last inspection.5/14/2014 Pipe section that was suspected of leaking was dug up and deemed to be in good condition. No signs of leaks were found.11/17/2014 Same as last inspection. FIELD_STRUCT_DESC: 20-inch pipe through the levee 3 feet below the crown. Siphon breaker on the waterward shoulder. Open on waterward end. Pump in ditch on landward side. (Permit No. 13624-D & D, Inc.) FS Date: 05/14/2015					

Pipe at outlet on WS toe

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.81</b>	Rating **	U	Issue No.	<b>143 (cont)</b>
LM End	<b>0.81</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID					

Photo 2 of 3 : UCIP\_FA\_2015\_5301.jpg



Pipe at outlet on WS toe

Action/Comments					
Inspector Comments: FS_ID:45164 DS_ID:17091 EP_NO: 13624 FS_HLM: 0.804 Repair Type: Urgent Crossing Status: Found UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet.5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 Hole in slope along outside of standpipe thats about 1 foot deep with moisture in the bottom. Dirt inside standpipe around siphon breaker also wet indicating there may be a leak. Need to investigate source or moisture.10/30/2013 Same as last inspection.5/14/2014 Pipe section that was suspected of leaking was dug up and deemed to be in good condition. No signs of leaks were found.11/17/2014 Same as last inspection. FIELD_STRUCT_DESC: 20-inch pipe through the levee 3 feet below the crown. Siphon breaker on the waterward shoulder. Open on waterward end. Pump in ditch on landward side. (Permit No. 13624-D & D, Inc.) FS Date: 05/14/2015					

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.81</b>	Rating **	U	Issue No.	<b>143 (cont)</b>
LM End	<b>0.81</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID					
<b>Action/Comments</b>					
Inspector Comments: FS_ID:45164 DS_ID:17091 EP_NO: 13624 FS_HLM: 0.804 Repair Type: Urgent Crossing Status: Found UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet.5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 Hole in slope along outside of standpipe thats about 1 foot deep with moisture in the bottom. Dirt inside standpipe around siphon breaker also wet indicating there may be a leak. Need to investigate source or moisture.10/30/2013 Same as last inspection.5/14/2014 Pipe section that was suspected of leaking was dug up and deemed to be in good condition. No signs of leaks were found.11/17/2014 Same as last inspection. FIELD_STRUCT_DESC: 20-inch pipe through the levee 3 feet below the crown. Siphon breaker on the waterward shoulder. Open on waterward end. Pump in ditch on landward side. (Permit No. 13624-D & D, Inc.) FS Date: 05/14/2015					

Photo 3 of 3 : UCIP\_FA\_2015\_5302.jpg



Pump on concrete headwall at LS toe.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.81</b>	Rating **	U	Issue No.	<b>144</b>
LM End	<b>0.81</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID					

Photo 1 of 3 : UCIP\_FA\_2015\_5297.jpg



**Action/Comments**

Inspector Comments: FS\_ID:45163  
 DS\_ID:17092  
 EP\_NO: N/A  
 FS\_HLM: 0.804  
 Repair Type: Urgent  
 Crossing Status: Found  
 UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. 5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. 11/17/2014 Same as last inspection.  
 FIELD\_STRUCT\_DESC: 1 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" shaped headwall at the waterward toe. Originally included in O+M manual (1955).  
 FS Date: 05/14/2015

Concrete U shaped headwall filled in with sandbags on WS toe. Flap gates appear to be missing and water readily flows through the sandbags fro landside.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.81</b>	Rating **	U	Issue No.	<b>144 (cont)</b>
LM End	<b>0.81</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID					

Photo 2 of 3 : UCIP\_FA\_2015\_5298.jpg



**Action/Comments**

Inspector Comments: FS\_ID:45163  
 DS\_ID:17092  
 EP\_NO: N/A  
 FS\_HLM: 0.804  
 Repair Type: Urgent  
 Crossing Status: Found  
 UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. 5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. 11/17/2014 Same as last inspection.  
 FIELD\_STRUCT\_DESC: 1 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" shaped headwall at the waterward toe. Originally included in O+M manual (1955).  
 FS Date: 05/14/2015

Concrete U shaped headwall on WS toe filled in with Sandbags. 16-inch pipe shown over top of headwall.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>0.81</b>	Rating **	U	Issue No.	<b>144 (cont)</b>
LM End	<b>0.81</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.903264 °	38.903264 °
				-121.605698 °	-121.605698 °
DWR ID					
Action/Comments					
Inspector Comments: FS_ID:45163 DS_ID:17092 EP_NO: N/A FS_HLM: 0.804 Repair Type: Urgent Crossing Status: Found UCIP Comments: 5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. 5/21/2013 SBFCA project recommends replacing in accordance with title 23.5/21/2013 High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. 11/17/2014 Same as last inspection. FIELD_STRUCT_DESC: 1 of 2. 18-inch pipe through the levee, 32.0 feet below the crown. Flap gate on the waterward end. Slide gate on the landward end at concrete headwall. Concrete "U" shaped headwall at the waterward toe. Originally included in O+M manual (1955). FS Date: 05/14/2015					

Photo 3 of 3 : UCIP\_FA\_2015\_5299.jpg



Concrete headwall with walkway and slide gates at LS toe.

LM Start	<b>1.51</b>	Rating **	M	Issue No.	<b>13</b>
LM End	<b>1.51</b>	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			38.904680 °	38.904680 °
				-121.594229 °	-121.594229 °
DWR ID	DWR_MA0003_01_s_2015_13				
Action/Comments					
Repair depressions or ruts in the crown or slope.					

Photo 1 of 1 : FA\_2015\_MA0003\_195\_13\_20151106\_00006.jpg



Photo of a depression in the crown, taken looking at the landside.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>2.17</b>	Rating **	M	Issue No.	<b>145 (cont)</b>
LM End	<b>2.17</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.911734 °	38.911734 °
				-121.586106 °	-121.586106 °
DWR ID					

Photo 2 of 3 : UCIP\_FA\_2015\_5340.jpg



**Action/Comments**

Inspector Comments: FS\_ID:45168  
 DS\_ID:17088  
 EP\_NO: 3284  
 FS\_HLM: 2.191  
 Repair Type: Non-Urgent  
 Crossing Status: Found  
 UCIP Comments: 5/12/2015 Only the right flapgate appeared to be abandoned. The left and middle flap gates were flowing water during the last inspection. Pumping plant has been disconnected from levee. Need to determine if abandonment is appropriate or if this is now a gravity drain with flap gate. 5/21/2013 Pumping plant was running and filling concrete vault on WS toe through the left flap gate and then flowing through levee pipe and filling irrigation ditch on LS. Left and middle flap gates appear to be connected to pumps and right gate appears abandoned. Recommend contacting owner to get more details. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. 11/17/2014 Same as last inspection.  
 FIELD\_STRUCT\_DESC: 32-inch by 32-inch concrete box culvert through the levee approximately 28 feet below the crown. Transition between vault on RS and box culvert within levee section is made with a 41-inch CMP. Slide gate on LS at concrete headwall. Flap Gate in concrete vault on RS at terminal of pipes from pump structure in floodway. Pipes from pump station in creek be no longer connected. (Permit No. 3284)  
 FS Date: 05/14/2015

8-foot X 14-foot concrete box on WS toe with slide gate and 3 abandoned flap gates.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>2.17</b>	Rating **	M	Issue No.	<b>145 (cont)</b>
LM End	<b>2.17</b>	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.911734 °	38.911734 °
				-121.586106 °	-121.586106 °
DWR ID					

Photo 3 of 3 : UCIP\_FA\_2015\_5341.jpg



**Action/Comments**

Inspector Comments: FS\_ID:45168  
 DS\_ID:17088  
 EP\_NO: 3284  
 FS\_HLM: 2.191  
 Repair Type: Non-Urgent  
 Crossing Status: Found  
 UCIP Comments: 5/12/2015 Only the right flapgate appeared to be abandoned. The left and middle flap gates were flowing water during the last inspection. Pumping plant has been disconnected from levee. Need to determine if abandonment is appropriate or if this is now a gravity drain with flap gate. 5/21/2013 Pumping plant was running and filling concrete vault on WS toe through the left flap gate and then flowing through levee pipe and filling irrigation ditch on LS. Left and middle flap gates appear to be connected to pumps and right gate appears abandoned. Recommend contacting owner to get more details. 10/30/2013 Same as last inspection. 5/14/2014 Same as last inspection. 11/17/2014 Same as last inspection.  
 FIELD\_STRUCT\_DESC: 32-inch by 32-inch concrete box culvert through the levee approximately 28 feet below the crown. Transition between vault on RS and box culvert within levee section is made with a 41-inch CMP. Slide gate on LS at concrete headwall. Flap Gate in concrete vault on RS at terminal of pipes from pump structure in floodway. Pipes from pump station in creek be no longer connected. (Permit No. 3284)  
 FS Date: 05/14/2015

32X32 box culvert on LS toe in Concrete U shaped channel with slide gate.

LM Start	<b>2.18</b>	Rating **	M	Issue No.	<b>15</b>
LM End	<b>2.18</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.911869 °	38.911869 °
				-121.586093 °	-121.586093 °
DWR ID	DWR_MA0003_01_s_2015_15				

No Photos

**Action/Comments**

Trim trees to at least five feet above ground level.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>2.18</b>	Rating **	A/W	Issue No.	<b>18</b>
LM End	<b>2.18</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			38.911869 °	38.911869 °
				-121.586093 °	-121.586093 °
DWR ID	DWR_MA0003_01_s_2015_18				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

No Photos

LM Start	<b>2.19</b>	Rating **	U	Issue No.	<b>141</b>
LM End	<b>2.19</b>	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.912027 °	38.912027 °
				-121.585941 °	-121.585941 °
DWR ID	DWR_MA0003_01_f_2014_141				
Action/Comments					
Prunings					

Photo 1 of 1 : FA\_2015\_MA0003\_195\_141\_20151106\_00012.jpg



This photo was taken from the crown facing north looking down the landward levee slope at pruning piles located at the levee toe that need to be removed. Fall 2014.

LM Start	<b>3.20</b>	Rating **	M	Issue No.	<b>20</b>
LM End	<b>3.20</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			38.925909 °	38.925909 °
				-121.585401 °	-121.585401 °
DWR ID	DWR_MA0003_01_s_2015_20				
Action/Comments					
Repair slope instability.					

Photo 1 of 1 : FA\_2015\_MA0003\_195\_20\_20151106\_00009.jpg



Photo of slope on the landside facing upstream, areas with little vegetation appear to have eroded leaving the crown smaller.

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>3.59</b>	Rating **	M	Issue No.	<b>19</b>
LM End	<b>3.59</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		38.930063 °	38.930063 °	
			-121.590211 °	-121.590211 °	
DWR ID	DWR_MA0003_01_f_2013_19				
Action/Comments					
Elderberries are blocking visibility and flood fight capability. Inspector Comments: Elderberries on the landward levee toe.					

Photo 1 of 1 : FA\_2015\_MA0003\_195\_19\_20151106\_00008.jpg



This photo was taken from the levee crown facing south looking down the landward levee slope at a group of Elderberries. Fall 2013.

LM Start	<b>4.15</b>	Rating **	M	Issue No.	<b>1</b>
LM End	<b>4.18</b>	Issue Type +	Ma	Location *	WS
Category	Supplemental		GPS Latitude/Longitude		
			Start	End	
Item	2015 USACE Erosion Survey, DRAFT		38.937451 °	38.937937 °	
			-121.588512 °	-121.588471 °	
DWR ID					
Action/Comments					
Inspector Comments: 2013 - Minor toe scour causing gradual erosion of bank slope. Site is within ecological reserve. 2015: Last observed in 2013. [2015 Site ID: FHR_12-3_R]					

Photo 1 of 2 : USACE2013A\_FHR\_12-3\_R\_2.jpg



USACE 2013 Photo #1

LM Start	<b>4.15</b>	Rating **	M	Issue No.	<b>1 (cont)</b>
LM End	<b>4.18</b>	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : USACE2013A\_FHR\_12-3\_R\_3.jpg



USACE 2013 Photo #2

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

**Levee Inspection Report By Mile - Fall 2015**

**Sutter Maintenance Yard Maintenance Area 0003**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River	Right	5.11	11/10/2015 11/10/2015	Keith Millard

LM Start	<b>4.71</b>	Rating **	M	Issue No.	<b>2</b>
LM End	<b>4.76</b>	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.945188 °	38.945958 °
				-121.586096 °	-121.586394 °
DWR ID					
Action/Comments					
Inspector Comments: 2013 - Minor toe scour causing gradual erosion into the bank slope. 2015: Last observed in 2013. [2015 Site ID: FHR_12-8_R]					

Photo 1 of 2 : USACE2013A\_FHR\_12-8\_R\_5.jpg



USACE 2013 Photo #1

LM Start	<b>4.71</b>	Rating **	M	Issue No.	<b>2 (cont)</b>
LM End	<b>4.76</b>	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : USACE2013A\_FHR\_12-8\_R\_6.jpg



USACE 2013 Photo #2

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