

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

**Sutter Maintenance Yard Hamilton Bend**

	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**

**Sutter Maintenance Yard Hamilton Bend**

Waterway		Bank	Unit Miles	
Unit No. 01 Feather River Hamilton Bend		Right	3.39	
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/5/2016 - 4/8/2016			
DWR Inspector	Sterling York			
Accompanied By	Shawn Freitag Sutter Maintenance Yard			

**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**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start		Rating **	A	Issue No.	<b>7</b>
LM End		Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Operations & Maintenance Manuals			o	
DWR ID	DWR_ST0005_01_s_2013_7				
Comment Code					
Inspector Comment					
The O&M manuals are located at the Sutter Maintenance Yard.					

No Photos

LM Start		Rating **	A	Issue No.	<b>8</b>
LM End		Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Emergency Supplies & Equipment			o	
DWR ID	DWR_ST0005_01_s_2013_8				
Comment Code					
Inspector Comment					
Emergency supplies and equipment are stored at the Sutter Maintenance Yard.					

No Photos

LM Start		Rating **	A	Issue No.	<b>9</b>
LM End		Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start		End
Item	Flood Preparedness & Training			o	
DWR ID	DWR_ST0005_01_s_2013_9				
Comment Code					
Inspector Comment					
Sutter Maintenance Yard employees attend the annual Flood Fight class put on by DWR inspector Bob Duffy.					

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 - Spring 2016**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start	<b>0.00</b>	Rating **	A	Issue No.	<b>25</b>
LM End	<b>3.39</b>	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		39.439671 °	39.472366 °	
			-121.641410 °	-121.609265 °	
DWR ID	DWR_ST0005_01_s_2016_25				
Comment Code					
EQ : Equipment					
Inspector Comment					
ST0005 Unit 1 has recently been reconstructed from levee mile 0.0 to 3.39, but has not been turned back over to the LMA.					

No Photos

LM Start	<b>0.19</b>	Rating **	M	Issue No.	<b>15</b>
LM End	<b>0.19</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		39.442435 °	39.442435 °	
			-121.641760 °	-121.641760 °	
DWR ID	DWR_ST0005_01_s_2015_15				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	<b>0.37</b>	Rating **	C	Issue No.	<b>12</b>
LM End	<b>0.37</b>	Issue Type +	Ma	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Crown Surface / Depressions / Rutting		39.445008 °	39.445008 °	
			-121.641811 °	-121.641812 °	
DWR ID	DWR_ST0005_01_s_2014_12				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

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 - Spring 2016**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start	<b>0.40</b>	Rating **	C	Issue No.	<b>2</b>
LM End	<b>0.40</b>	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.445420 °	39.445430 °
				-121.641809 °	-121.641802 °
DWR ID	DWR_ST0005_01_s_2015_2				
Comment Code					
C1 : Add appropriate material and re-grade the levee to bring the crown above the design elevation.					
Inspector Comment					

No Photos

LM Start	<b>0.45</b>	Rating **	C	Issue No.	<b>17</b>
LM End	<b>0.45</b>	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			39.446168 °	39.446168 °
				-121.641742 °	-121.641742 °
DWR ID	DWR_ST0005_01_s_2015_17				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

No Photos

LM Start	<b>0.73</b>	Rating **	M	Issue No.	<b>14</b>
LM End	<b>0.91</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.450109 °	39.452643 °
				-121.640851 °	-121.640316 °
DWR ID	DWR_ST0005_01_s_2016_14				
Comment Code					
T3 : Trim and thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					
trees smaller than 4" in diameter at chest height should be removed before they get any bigger.					

Photo 1 of 1 : SP\_2016\_ST0005\_289\_14\_20160418\_00027.jpg



View looking upstream of trees. Small trees 4" in diameter at chest height should be removed before they get to big., Spring 2016.

<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 - Spring 2016**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start	<b>0.80</b>	Rating **	M	Issue No.	<b>13</b>
LM End	<b>0.80</b>	Issue Type +	En	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		39.450989 °	39.450989 °	
			-121.640782 °	-121.640782 °	
DWR ID	DWR_ST0005_01_s_2016_13				
Comment Code					
PO : Pole					
Inspector Comment					

No Photos

LM Start	<b>0.97</b>	Rating **	M	Issue No.	<b>16</b>
LM End	<b>0.97</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		39.453502 °	39.453502 °	
			-121.640238 °	-121.640238 °	
DWR ID	DWR_ST0005_01_s_2016_16				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	<b>1.05</b>	Rating **	C	Issue No.	<b>28</b>
LM End	<b>1.05</b>	Issue Type +	En	Location *	CR
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		39.454485 °	39.454485 °	
			-121.640309 °	-121.640309 °	
DWR ID	DWR_ST0005_01_f_2013_28				
Comment Code					
BU : Building					
Inspector Comment					
Abandoned inlet structure.					

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 - Spring 2016**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start	<b>1.57</b>	Rating **	M	Issue No.	<b>20</b>
LM End	<b>3.30</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		39.459176 °	39.471123 °	
			-121.636229 °	-121.609211 °	
DWR ID	DWR_ST0005_01_s_2016_20				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	<b>1.69</b>	Rating **	M	Issue No.	<b>5</b>
LM End	<b>3.04</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Trim / Thin Trees		39.459451 °	39.469081 °	
			-121.633670 °	-121.612535 °	
DWR ID	DWR_ST0005_01_s_2013_5				
Comment Code					
T3 : Trim and thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					
Trees smaller than 4" in diameter at chest height should be removed before they get any bigger.					

Photo 1 of 1 : SP\_2016\_ST0005\_289\_5\_20160307\_00003.jpg



W/S trees 4" in diameter at chest height should be removed before they get to big..

LM Start	<b>1.72</b>	Rating **	M	Issue No.	<b>24</b>
LM End	<b>1.82</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Vegetation		39.459607 °	39.459968 °	
			-121.633137 °	-121.631471 °	
DWR ID	DWR_ST0005_01_s_2016_24				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
The vegetation in this area is very dense , broad leaf, and taller than annual grasses.					

No Photos

<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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Levee Inspections**

**Levee Inspection Report By Mile - Spring 2016**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start	<b>3.09</b>	Rating **	M	Issue No.	<b>23</b>
LM End	<b>3.26</b>	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.469304 °	39.470507 °
				-121.611733 °	-121.609215 °
DWR ID	DWR_ST0005_01_s_2016_23				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
The vegetation in this area is very dense , broad leaf, and taller than annual grasses.					

No Photos

LM Start	<b>3.25</b>	Rating **	M	Issue No.	<b>29</b>
LM End	<b>3.25</b>	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.470269 °	39.470269 °
				-121.609229 °	-121.609229 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:47972 DS_ID:17044 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 4/26/2016 Unable to access area near structure.5/14/2013 Same as last inspection.11/14/2012 Abandoned Structure: WS- reminince of gates and concrete standpipe; LS-reminince of concrete headwall and pump station. FIELD_STRUCT_DESC: *ABANDONED* 1 of 2: [Western Canal Head Gate Inlet Structure]. 8 by 8-foot concrete culverts through the levee 25.0 feet below the crown. Three slide gates on the waterside (WS) end. Concrete stairs on the WS slope. Concrete headwall at both toes. This entry matches the Drainage or Irrigation Structure referenced in O&M manual (Historic Station 170+00). (USACE O&M Manual, 1957) FS Date: 5/3/2016 12:36:00 PM					

Photo 1 of 2 : UCIP\_SP\_2016\_47972\_21682.jpg



View of levee crown looking downstream.

<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 - Spring 2016**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start	<b>3.25</b>	Rating **	M	Issue No.	<b>29 (cont)</b>
LM End	<b>3.25</b>	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.470269 °	39.470269 °
				-121.609229 °	-121.609229 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:47972 DS_ID:17044 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 4/26/2016 Unable to access area near structure.5/14/2013 Same as last inspection.11/14/2012 Abandoned Structure: WS- reminince of gates and concrete standpipe; LS-reminince of concrete headwall and pump station. FIELD_STRUCT_DESC: *ABANDONED* 1 of 2: [Western Canal Head Gate Inlet Structure]. 8 by 8-foot concrete culverts through the levee 25.0 feet below the crown. Three slide gates on the waterside (WS) end. Concrete stairs on the WS slope. Concrete headwall at both toes. This entry matches the Drainage or Irrigation Structure referenced in O&M manual (Historic Station 170+00). (USACE O&M Manual, 1957) FS Date: 5/3/2016 12:36:00 PM					

Photo 2 of 2 : UCIP\_SP\_2016\_47972\_21681.jpg



View of levee crown at right bend.

<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 - Spring 2016**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start	<b>3.25</b>	Rating **	M	Issue No.	<b>30</b>
LM End	<b>3.25</b>	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			39.470269 °	39.470269 °
				-121.609229 °	-121.609229 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:47973 DS_ID:17056 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: 4/26/2016 Unable to access area near structure.5/14/2013 Same as last inspection.11/14/2012 Abandoned Structure: WS- reminince of gates and concrete standpipe; LS-reminince of concrete headwall and pump station. FIELD_STRUCT_DESC: *ABANDONED* 2 of 2: [Western Canal Head Gate Inlet Structure] 8 by 8-foot concrete culvert through the levee 25.0 feet below the crown. Three slide gates on the waterside (WS) end. Concrete stairs on the WS slope. Concrete headwall at both toes. This entry matches the Drainage or Irrigation Structure referenced in O&M manual (Historic Station 170+00). (USACE O&M Manual, 1957) FS Date: 5/3/2016 12:37:00 PM					

Photo 1 of 2 : UCIP\_SP\_2016\_47973\_21697.jpg



View of levee crown looking downstream.

LM Start	<b>3.25</b>	Rating **	M	Issue No.	<b>30 (cont)</b>
LM End	<b>3.25</b>	Issue Type +	En	Location *	WS

Photo 2 of 2 : UCIP\_SP\_2016\_47973\_21696.jpg



View of levee crown at a right bend.

<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 - Spring 2016**

**Sutter Maintenance Yard Hamilton Bend**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Feather River Hamilton Bend	Right	3.39	04/05/2016 04/08/2016	Sterling York

LM Start	<b>3.26</b>	Rating **	M	Issue No.	<b>4</b>
LM End	<b>3.27</b>	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.470433 °	39.470558 °
				-121.609200 °	-121.609215 °
DWR ID	DWR_ST0005_01_s_2013_4				
Comment Code					
T3 : Trim and thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					
Small trees 4" in diameter at chest height should be removed before they get to big.					

Photo 1 of 1 : SP\_2016\_ST0005\_289\_4\_20160307\_00002.jpg



L/S trees. Small trees 4" in diameter at chest height should be removed before they get to big.

<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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