

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

Brannan Andrus Levee Maintenance District

Waterway			Bank	Unit Miles
Unit No. 01 Georgiana Slough			Right	6.01
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/22/2016 - 3/22/2016			
DWR Inspector	Richard Willoughby			
Accompanied By	Gilbert Labrie DCC Engineering Co, Inc			

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

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start		Rating **	A	Issue No.	27
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training			°	°
				°	°
DWR ID	DWR_NA0002_01_s _ 2012_27				
Comment Code					
Inspector Comment					
LMA is prepared to respond to a flood emergency.					

No Photos

LM Start		Rating **	A	Issue No.	32
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals			°	°
				°	°
DWR ID	DWR_NA0002_01_s _ 2013_32				
Comment Code					
Inspector Comment					
The LMA maintains a copy of the O&M manual on file at district office.					

No Photos

LM Start		Rating **	A	Issue No.	33
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment			°	°
				°	°
DWR ID	DWR_NA0002_01_s _ 2013_33				
Comment Code					
Inspector Comment					
LMA maintains an adequate amount of flood fight supplies and equipment for flood response.					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	0.00	Rating **	M	Issue No.	62
LM End	6.01	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.186448 °	38.129578 °
				-121.562704 °	-121.578600 °
DWR ID	DWR_NA0002_01_s _ 2016_62				
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.	63
LM End	6.01	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.186448 °	38.129578 °
				-121.562704 °	-121.578599 °
DWR ID	DWR_NA0002_01_s _ 2016_63				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	0.50	Rating **	A	Issue No.	67
LM End	2.17	Issue Type +	Ob	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.182707 °	38.164541 °
				-121.570537 °	-121.583951 °
DWR ID	DWR_NA0002_01_s _ 2016_67				
Comment Code					
DT : Ditch					
Inspector Comment					
Ditch has been in place for several years.					

Photo 1 of 4 : SP_2016_NA0002_62_67_20160323_00099.jpg



Looking southwest at drainage ditch at landward toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	0.50	Rating **	A	Issue No.	67 (cont)	
LM End	2.17	Issue Type +	Ob	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			38.182707 °		38.164541 °
				-121.570537 °		-121.583951 °
DWR ID	DWR_NA0002_01_s _ 2016_67					
Comment Code						
DT : Ditch						
Inspector Comment						
Ditch has been in place for several years.						

LM Start	0.50	Rating **	A	Issue No.	67 (cont)
LM End	2.17	Issue Type +	Ob	Location *	LS

Photo 2 of 4 : SP_2016_NA0002_62_67_20160323_00098.jpg



Looking north at drainage ditch along landward toe.

Photo 3 of 4 : SP_2016_NA0002_62_67_20160323_00100.jpg



Looking south at drainage ditch along landward toe.

LM Start	0.50	Rating **	A	Issue No.	67 (cont)
LM End	2.17	Issue Type +	Ob	Location *	LS

Photo 4 of 4 : SP_2016_NA0002_62_67_20160323_00101.jpg



Looking north at drainage ditch along landward toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	0.61	Rating **	M	Issue No.	72
LM End	0.61	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.182213 °	38.182213 °
				-121.572357 °	-121.572357 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13560 DS_ID:21752 EP_NO: 2015 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: This pipe appears abandoned and should be removed. FIELD_STRUCT_DESC: 2-inch galvanized pipe through levee 2.0 feet below crown. Gas well drain (Permit No. 2015, 1959). FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_13560_22173.jpg



Pipe in grass on WS slope.

LM Start	0.61	Rating **	M	Issue No.	72 (cont)
LM End	0.61	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_SP_2016_13560_22172.jpg



Pipe in grass on WS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	0.75	Rating **	M	Issue No.	78
LM End	0.75	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.182212 °	38.182212 °
				-121.574987 °	-121.574987 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:15984					
DS_ID:21753					
EP_NO: 11232					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Unable to locate any appurtances other than distro box. Need to verify proper abandonment.					
FIELD_STRUCT_DESC: 12-inch pipe through levee 3.2 feet below crown. Siphon breaker on landward slope. Concrete distribution box located landward of the toe (ABO No. 11232, 1975). 2" primer valve. Originally included in the 1954 O&M manual.					
FS Date: 5/16/2013					

Photo 1 of 1 : UCIP_SP_2016_15984_26969.jpg



Concrete distribution box on LS toe.

LM Start	1.22	Rating **	M	Issue No.	71
LM End	1.22	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.177669 °	38.177669 °
				-121.580222 °	-121.580222 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13558 DS_ID:21754 EP_NO: 11234 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned and should be done so properly. FIELD_STRUCT_DESC: 1 of 2: 8-inch steel pipe through levee 4.3 feet below crown. Pump in pump house on waterward berm. 60-inch diameter concrete standpipe on LS toe (ABO No. 11234, 1975). Originally included in the 1954 O&M manual. FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_13558_22169.jpg



Concrete standpipe on LS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	1.22	Rating **	M	Issue No.	71 (cont)	
LM End	1.22	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.177669 °	38.177669 °	
				-121.580222 °	-121.580222 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:13558 DS_ID:21754 EP_NO: 11234 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned and should be done so properly. FIELD_STRUCT_DESC: 1 of 2: 8-inch steel pipe through levee 4.3 feet below crown. Pump in pump house on waterward berm. 60-inch diameter concrete standpipe on LS toe (ABO No. 11234, 1975). Originally included in the 1954 O&M manual. FS Date: 5/16/2013						

Photo 2 of 2 : UCIP_SP_2016_13558_22168.jpg



Concrete standpipe on LS toe.

LM Start	1.54	Rating **	M	Issue No.	70
LM End	1.54	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.173254 °	38.173254 °
				-121.580718 °	-121.580718 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13554 DS_ID:21755 EP_NO: 11252 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe heavily rusted at distribution box. Good candidate for video inspection. FIELD_STRUCT_DESC: 1 of 3: 8-inch steel pipe through levee 4.6 feet below crown. Pump and valve on waterward slope. Siphon breaker in 24-inch CMP riser on LS shoulder. 7'X10'-concrete distribution box at LS toe (ABO No. 11252, 1976). Originally included in the 1954 O&M manual. FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_13554_22164.jpg



7X10-foot concrete distribution box on LS toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	1.54	Rating **	M	Issue No.	70 (cont)	
LM End	1.54	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.173254 °		38.173254 °
				-121.580718 °		-121.580718 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:13554 DS_ID:21755 EP_NO: 11252 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe heavily rusted at distribution box. Good candidate for video inspection. FIELD_STRUCT_DESC: 1 of 3: 8-inch steel pipe through levee 4.6 feet below crown. Pump and valve on waterward slope. Siphon breaker in 24-inch CMP riser on LS shoulder. 7'X10'-concrete distribution box at LS toe (ABO No. 11252, 1976). Originally included in the 1954 O&M manual. FS Date: 5/16/2013						

Photo 2 of 2 : UCIP_SP_2016_13554_22163.jpg



Pipe shows excessive rust at inlet to distribution box on LS toe.

LM Start	1.56	Rating **	U	Issue No.	25
LM End	1.56	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.172869 °	38.172869 °
				-121.580681 °	-121.580681 °
DWR ID	DWR_NA0002_01_s_2012_25				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					
Tree blocking landward toe.					

Photo 1 of 3 : SP_2016_NA0002_62_25_20160308_00024.jpg



Looking northwest at untrimmed tree at landward toe. (Spring 2015)

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	1.56	Rating **	U	Issue No.	25 (cont)	
LM End	1.56	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Trim / Thin Trees			38.172869 °		38.172869 °
				-121.580681 °		-121.580681 °
DWR ID	DWR_NA0002_01_s _ 2012_25					
Comment Code						
T1 : Trim trees to at least five feet above ground level.						
Inspector Comment						
Tree blocking landward toe.						

LM Start	1.56	Rating **	U	Issue No.	25 (cont)
LM End	1.56	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : SP_2016_NA0002_62_25_20160308_00025.jpg



Looking west at untrimmed tree at landward toe. (Spring 2015)

Photo 3 of 3 : SP_2016_NA0002_62_25_20160308_00026.jpg



Looking southwest at an untrimmed tree on landward slope and toe. (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	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.17	Rating **	M	Issue No.	68
LM End	2.17	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.164491 °	38.164491 °
				-121.583943 °	-121.583943 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13549 DS_ID:21758 EP_NO: 11252 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe rusted through at inlet to box. Good candidate for video inspection. FIELD_STRUCT_DESC: 3 of 3: 12-inch steel pipe through the levee 4.0 feet below the crown. Slant pump on bank. Switch box on berm, conduit through levee. Siphon breaker in 24-inch CMP riser on landward slope. Power pole and electrical panel at landward toe (ABO No. 11252, 1975). 7'X10' concrete distribution box on LS toe. Originally included in the 1954 O&M manual. FS Date: 5/16/2013					

LM Start	2.17	Rating **	M	Issue No.	68 (cont)
LM End	2.17	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_13549_22155.jpg



Concrete distribution box and siphon breaker in CMP riser on LS.

Photo 2 of 2 : UCIP_SP_2016_13549_22154.jpg



Slant pump on WS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.20	Rating **	M	Issue No.	26
LM End	2.22	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.164138 °	38.163797 °
				-121.584078 °	-121.584225 °
DWR ID	DWR_NA0002_01_s _ 2013_26				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Control wild growth at landside toe.					

LM Start	2.20	Rating **	M	Issue No.	26 (cont)
LM End	2.22	Issue Type +	Ma	Location *	LS

Photo 1 of 2 : SP_2016_NA0002_62_26_20160308_00027.jpg



Looking west at dense vegetation at landward toe.

Photo 2 of 2 : SP_2016_NA0002_62_26_20160308_00028.jpg



Looking southwest at dense vegetation at landward toe.

LM Start	2.25	Rating **	A/W	Issue No.	6
LM End	2.25	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.163460 °	38.163460 °
				-121.584406 °	-121.584406 °
DWR ID	DWR_NA0002_01_s _ 2012_6				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.29	Rating **	U	Issue No.	36
LM End	2.34	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.162918 °	38.162322 °
				-121.584721 °	-121.585081 °
DWR ID	DWR_NA0002_01_s _ 2012_36				
Comment Code					
V6 : Landscaping					
Inspector Comment					

LM Start	2.29	Rating **	U	Issue No.	36 (cont)
LM End	2.34	Issue Type +	En	Location *	LS

Photo 1 of 4 : SP_2016_NA0002_62_36_20160308_00033.jpg



Looking south at dense landscaping on the waterside and landside of levee.

Photo 2 of 4 : SP_2016_NA0002_62_36_20160308_00034.jpg



Looking south at dense oleander on waterside shoulder, spring 2012.

LM Start	2.29	Rating **	U	Issue No.	36 (cont)
LM End	2.34	Issue Type +	En	Location *	LS

Photo 3 of 4 : SP_2016_NA0002_62_36_20160308_00035.jpg



Looking north at dense vegetation on waterside slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.29	Rating **	U	Issue No.	36 (cont)	
LM End	2.34	Issue Type +	En	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			38.162918 °		38.162322 °
				-121.584721 °		-121.585081 °
DWR ID	DWR_NA0002_01_s _ 2012_36					
Comment Code						
V6 : Landscaping						
Inspector Comment						

Photo 4 of 4 : SP_2016_NA0002_62_36_20160308_00036.jpg



Looking west at ground cover on landside slope.

LM Start	2.30	Rating **	M	Issue No.	3
LM End	2.30	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.162773 °	38.162773 °
				-121.584767 °	-121.584767 °
DWR ID	DWR_NA0002_01_s _ 2012_3				
Comment Code					
FW : Firewood					
Inspector Comment					

Photo 1 of 3 : SP_2016_NA0002_62_3_20160308_00003.jpg



Looking east at firewood on waterside shoulder.

LM Start	2.30	Rating **	M	Issue No.	3 (cont)
LM End	2.30	Issue Type +	Ma	Location *	WS

Photo 2 of 3 : SP_2016_NA0002_62_3_20160308_00004.jpg



Looking southeast at firewood on waterside shoulder.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.30	Rating **	M	Issue No.	3 (cont)	
LM End	2.30	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			38.162773 °		38.162773 °
				-121.584767 °		-121.584767 °
DWR ID	DWR_NA0002_01_s_2012_3					
Comment Code						
FW : Firewood						
Inspector Comment						

Photo 3 of 3 : SP_2016_NA0002_62_3_20160308_00005.jpg



Looking south at firewood on waterside shoulder.

LM Start	2.33	Rating **	M	Issue No.	50
LM End	2.33	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.162343 °	38.162343 °
				-121.585020 °	-121.585020 °
DWR ID	DWR_NA0002_01_f_2014_50				
Comment Code					
LI : Landscape Irrigation					
Inspector Comment					
Landowner installed sprinklers along waterward slope without permit.					

Photo 1 of 1 : SP_2016_NA0002_62_50_20160308_00040.jpg



Looking east at sprinklers on waterward slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.34	Rating **	M	Issue No.	79
LM End	2.34	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.162332 °	38.162332 °
				-121.585032 °	-121.585032 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:16123					
DS_ID:21819					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe appears abandoned and should be done so properly.					
FIELD_STRUCT_DESC: 2-inch steel pipe through levee 3.0 feet below crown. Originally included in the 1954 O&M manual.					
FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_16123_27221.jpg



Pipe visible in water at WS toe.

LM Start	2.34	Rating **	M	Issue No.	79 (cont)
LM End	2.34	Issue Type +	En	Location *	WS

Photo 2 of 2 : UCIP_SP_2016_16123_27220.jpg



Pipe visible in water at WS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.36	Rating **	M	Issue No.	7
LM End	2.36	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			38.162004 °	38.162004 °
				-121.585229 °	-121.585229 °
DWR ID	DWR_NA0002_01_s _ 2012_7				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

LM Start	2.40	Rating **	M	Issue No.	8
LM End	2.40	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.161573 °	38.161573 °
				-121.585720 °	-121.585720 °
DWR ID	DWR_NA0002_01_s _ 2013_8				
Comment Code					
GA : Garbage					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_62_8_20160308_00007.jpg



Looking northeast at garbage at landward toe.

LM Start	2.44	Rating **	A	Issue No.	56
LM End	2.58	Issue Type +	Ob	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.160995 °	38.158977 °
				-121.585763 °	-121.586638 °
DWR ID	DWR_NA0002_01_s _ 2014_56				
Comment Code					
DT : Ditch					
Inspector Comment					
Ditch has been in place for several years.					

Photo 1 of 3 : SP_2016_NA0002_62_56_20160308_00052.jpg



Looking south at ditch within fifteen feet of landward toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.44	Rating **	A	Issue No.	56 (cont)	
LM End	2.58	Issue Type +	Ob	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			38.160995 °		38.158977 °
				-121.585763 °		-121.586638 °
DWR ID	DWR_NA0002_01_s _ 2014_56					
Comment Code						
DT : Ditch						
Inspector Comment						
Ditch has been in place for several years.						

LM Start	2.44	Rating **	A	Issue No.	56 (cont)
LM End	2.58	Issue Type +	Ob	Location *	LS

Photo 2 of 3 : SP_2016_NA0002_62_56_20160308_00053.jpg



Looking north at south end of ditch within fifteen feet of landward toe.

Photo 3 of 3 : SP_2016_NA0002_62_56_20160308_00054.jpg



Looking north at ditch within fifteen feet of landward toe.

LM Start	2.45	Rating **	U	Issue No.	28
LM End	2.49	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.160805 °	38.160281 °
				-121.585782 °	-121.586007 °
DWR ID	DWR_NA0002_01_s _ 2013_28				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Dense vegetation and wild roses on landside slope and toe.					

Photo 1 of 1 : SP_2016_NA0002_62_28_20160308_00029.jpg



Look west at dense vegetation at landward toe.

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

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

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.50	Rating **	M	Issue No.	77
LM End	2.50	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.160147 °	38.160147 °
				-121.586088 °	-121.586088 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:13545
DS_ID:21762
EP_NO: N/A
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: Pipe appears abandoned and should be done so properly. standpipe on LS is covered in brush.
FIELD_STRUCT_DESC: 8-inch steel pipe through the levee 3.4 feet below the crown. 6" pump on waterward side. 36-inch concrete standpipe on LS toe. Originally included in the 1954 O&M manual.
FS Date: 5/16/2013

LM Start	2.50	Rating **	M	Issue No.	77 (cont)
LM End	2.50	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_13545_22145.jpg



Pipe and pump on WS slope.

Photo 2 of 2 : UCIP_SP_2016_13545_22144.jpg



Standpipe covered in brush on LS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.54	Rating **	M	Issue No.	76
LM End	2.54	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.159569 °	38.159569 °
				-121.586340 °	-121.586340 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13525 DS_ID:21764 EP_NO: 17250 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Needs better location markers. FIELD_STRUCT_DESC: 24-inch steel natural-gas pipeline through the levee 117-feet below the crown (Permit No. 17250, 2001). Possible sign on LS toe. FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_13525_22128.jpg



Gasline marker on LS toe.

LM Start	2.54	Rating **	M	Issue No.	76 (cont)
LM End	2.54	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_SP_2016_13525_22127.jpg



Gasline marker on LS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	2.60	Rating **	U	Issue No.	82
LM End	2.60	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.158683 °	38.158683 °
				-121.586784 °	-121.586784 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:42846 DS_ID:21765 EP_NO: 11238 Repair Type: Urgent Crossing Status: Found UCIP Comments: Erosion along pipe at WS toe goes into levee prism. Animal activity appears to be the cause of some pretty heavy erosion damage. Some settlement along the pipe alignment on crown may indicate other problems with this pipe. FIELD_STRUCT_DESC: 1 of 5: 12-inch steel pipe through levee 4.0 feet below crown. Siphon breaker on landward shoulder. 7X9-foot concrete distribution box on LS toe (ABO No. 11238, 1975). Originally included in the 1954 O&M manual. (pipe replaced under Permit No. 18549 7/11/2009). FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_42846_22124.jpg



Pipe visible on LS shoulder with concrete distribution box on LS toe.
Gasline marker placed at pipe.

LM Start	2.60	Rating **	U	Issue No.	82 (cont)
LM End	2.60	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_SP_2016_42846_22123.jpg



Concrete distribution box on LS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	3.00	Rating **	U	Issue No.	55
LM End	3.00	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.156493 °	38.156493 °
				-121.592481 °	-121.592481 °
DWR ID	DWR_NA0002_01_s _ 2014_55				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Dense vegetation on landward toe.					

LM Start	3.00	Rating **	U	Issue No.	55 (cont)
LM End	3.00	Issue Type +	Ma	Location *	LS

Photo 1 of 4 : SP_2016_NA0002_62_55_20160323_00102.jpg



Looking northwest at dense vegetation at landward toe. (Spring 2016)

Photo 2 of 4 : SP_2016_NA0002_62_55_20160308_00049.jpg



Looking southwest at dense vegetation at landward toe. (Spring 2015)

Photo 3 of 4 : SP_2016_NA0002_62_55_20160308_00050.jpg



Looking north at dense vegetation withing fifteen feet of landward toe.

LM Start	3.00	Rating **	U	Issue No.	55 (cont)
LM End	3.00	Issue Type +	Ma	Location *	LS

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	3.00	Rating **	U	Issue No.	55 (cont)	
LM End	3.00	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			38.156493 °		38.156493 °
				-121.592481 °		-121.592481 °
DWR ID	DWR_NA0002_01_s _ 2014_55					
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment						
Dense vegetation on landward toe.						

Photo 4 of 4 : SP_2016_NA0002_62_55_20160308_00051.jpg



Looking north at dense vegetation within fifteen feet of landward toe.

LM Start	3.01	Rating **	M	Issue No.	80
LM End	3.01	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.156379 °	38.156379 °
				-121.592527 °	-121.592527 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:41561 DS_ID:21766 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Appears abandoned FIELD_STRUCT_DESC: 12-inch pipeline through levee, 5-foot diameter concrete riser on LS toe. FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_41561_27229.jpg



5-foot diameter concrete riser on LS toe, but no pipe visible.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	3.01	Rating **	M	Issue No.	80 (cont)	
LM End	3.01	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.156379 °		38.156379 °
				-121.592527 °		-121.592527 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:41561						
DS_ID:21766						
EP_NO: N/A						
Repair Type: Non-Urgent						
Crossing Status: Indicator Found						
UCIP Comments: Appears abandoned						
FIELD_STRUCT_DESC: 12-inch pipeline through levee, 5-foot diameter concrete riser on LS toe.						
FS Date: 5/16/2013						

Photo 2 of 2 : UCIP_SP_2016_41561_27228.jpg



5-foot diameter concrete riser on LS toe, but no pipe visible.

LM Start	3.37	Rating **	M	Issue No.	5
LM End	3.37	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.151492 °	38.151492 °
				-121.591942 °	-121.591942 °
DWR ID	DWR_NA0002_01_f_2013_5				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Remove cactus from waterward slope.					

Photo 1 of 1 : SP_2016_NA0002_62_5_20160308_00006.jpg



Looking south at cacti on waterward slope near Oxbow Harbor.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	3.46	Rating **	A/W	Issue No.	30
LM End	3.82	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.151572 °	38.149813 °
				-121.593488 °	-121.598913 °
DWR ID	DWR_NA0002_01_s _ 2013_30				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Willows on waterside slope.					

No Photos

LM Start	3.62	Rating **	A/W	Issue No.	9
LM End	3.62	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.151744 °	38.151744 °
				-121.596425 °	-121.596425 °
DWR ID	DWR_NA0002_01_s _ 2012_9				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	3.87	Rating **	M	Issue No.	57
LM End	3.87	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.149217 °	38.149217 °
				-121.599389 °	-121.599389 °
DWR ID	DWR_NA0002_01_f _ 2015_57				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	3.93	Rating **	A/W	Issue No.	10
LM End	3.93	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.148379 °	38.148379 °
				-121.599970 °	-121.599970 °
DWR ID	DWR_NA0002_01_s _ 2012_10				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

LM Start	3.93	Rating **	U	Issue No.	11
LM End	3.97	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.148318 °	38.147898 °
				-121.599947 °	-121.600347 °
DWR ID	DWR_NA0002_01_s _ 2012_11				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 3 : SP_2016_NA0002_62_11_20160308_00011.jpg



Looking northeast at landscaping on landside slope.

LM Start	3.93	Rating **	U	Issue No.	11 (cont)
LM End	3.97	Issue Type +	En	Location *	LS

Photo 2 of 3 : SP_2016_NA0002_62_11_20160308_00012.jpg



Looking south at bushes on landside shoulder and slope.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	3.93	Rating **	U	Issue No.	11 (cont)	
LM End	3.97	Issue Type +	En	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			38.148318 °		38.147898 °
				-121.599947 °		-121.600347 °
DWR ID	DWR_NA0002_01_s_2012_11					
Comment Code						
V6 : Landscaping						
Inspector Comment						

Photo 3 of 3 : SP_2016_NA0002_62_11_20160308_00013.jpg



Looking west at dense landscaping on landside slope.

LM Start	3.99	Rating **	M	Issue No.	75
LM End	3.99	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.147653 °	38.147653 °
				-121.600491 °	-121.600491 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13487 DS_ID:21825 EP_NO: 11248 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Leakage of pipe at WS toe creating erosion. Possible cavity collapse along pipe alignment on WS berm. FIELD_STRUCT_DESC: 2 of 2: 4-inch pipe through levee 4.0 feet below crown. Siphon breaker on waterward slope. Pump on landward side (ABO No. 11248, 1975). FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_13487_22053.jpg



Pipe visible between two large storm drain pipes on WS.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	3.99	Rating **	M	Issue No.	75 (cont)	
LM End	3.99	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.147653 °	38.147653 °	
				-121.600491 °	-121.600491 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:13487						
DS_ID:21825						
EP_NO: 11248						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: Leakage of pipe at WS toe creating erosion.						
Possible cavity collapse along pipe alignment on WS berm.						
FIELD_STRUCT_DESC: 2 of 2: 4-inch pipe through levee 4.0 feet below crown. Siphon breaker on waterward slope. Pump on landward side (ABO No. 11248, 1975).						
FS Date: 5/16/2013						

Photo 2 of 2 : UCIP_SP_2016_13487_22052.jpg



Possible indicator of internal pipe failure along pipe alignment as there appears to be a cavity collapse over the pipe on the WS berm.

LM Start	3.99	Rating **	U	Issue No.	83
LM End	3.99	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.147657 °	38.147657 °
				-121.600521 °	-121.600521 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:42847					
DS_ID:21773					
EP_NO: 5534					
Repair Type: Urgent					
Crossing Status: Found					
UCIP Comments: Pot holes over pipe may indicate internal failure.					
Good candidate for video inspection.					
FIELD_STRUCT_DESC: 22-inch steel discharge pipe through levee 3.0 feet below crown. Siphon breaker on WS shoulder. Pump in channel on landward side (Permit No. 5534, 1966). Replaced a 24-inch pipe at same location.					
FS Date: 5/16/2013					

Photo 1 of 2 : UCIP_SP_2016_42847_22078.jpg



Pipe and siphon breaker on WS shoulder.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	3.99	Rating **	U	Issue No.	83 (cont)	
LM End	3.99	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.147657 °		38.147657 °
				-121.600521 °		-121.600521 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:42847						
DS_ID:21773						
EP_NO: 5534						
Repair Type: Urgent						
Crossing Status: Found						
UCIP Comments: Pot holes over pipe may indicate internal failure.						
Good candidate for video inspection.						
FIELD_STRUCT_DESC: 22-inch steel discharge pipe through levee 3.0						
feet below crown. Siphon breaker on WS shoulder. Pump in channel						
on landward side (Permit No. 5534, 1966). Replaced a 24-inch pipe at						
same location.						
FS Date: 5/16/2013						

Photo 2 of 2 : UCIP_SP_2016_42847_22077.jpg



Pipe and pumping plant on LS slope.

LM Start	4.04	Rating **	U	Issue No.	74
LM End	4.04	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.146985 °	38.146985 °
				-121.601019 °	-121.601019 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13483 DS_ID:21775 EP_NO: 11238 Repair Type: Urgent Crossing Status: Found UCIP Comments: Missing cover on concrete sump is an immediate hazard and should be repaired. FIELD_STRUCT_DESC: 5 of 5: 8-inch steel pipe through levee 3.7 feet below crown. 5X5-foot concrete spillbox on LS slope (ABO No. 11238, 1975). Originally included in the 1954 O&M manual. FS Date: 5/8/2013					

Photo 1 of 2 : UCIP_SP_2016_13483_22042.jpg



Pipe and concrete sump on LS.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	4.04	Rating **	U	Issue No.	74 (cont)	
LM End	4.04	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.146985 °	38.146985 °	
				-121.601019 °	-121.601019 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:13483						
DS_ID:21775						
EP_NO: 11238						
Repair Type: Urgent						
Crossing Status: Found						
UCIP Comments: Missing cover on concrete sump is an immediate hazard and should be repaired.						
FIELD_STRUCT_DESC: 5 of 5: 8-inch steel pipe through levee 3.7 feet below crown. 5X5-foot concrete spillbox on LS slope (ABO No. 11238, 1975). Originally included in the 1954 O&M manual.						
FS Date: 5/8/2013						

Photo 2 of 2 : UCIP_SP_2016_13483_22041.jpg



Pipe visible at waters edge on WS toe.

LM Start	4.18	Rating **	A/W	Issue No.	12
LM End	4.20	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.145094 °	38.144817 °
				-121.601585 °	-121.601477 °
DWR ID	DWR_NA0002_01_s_2012_12				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

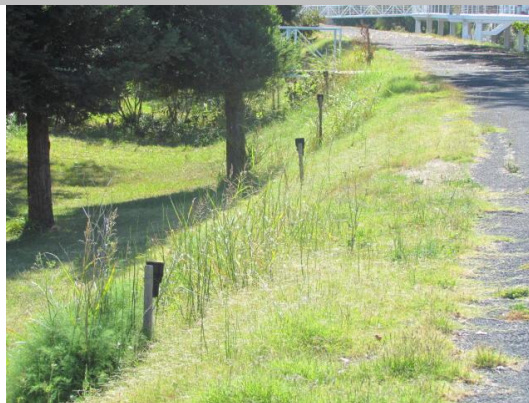
Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	4.23	Rating **	M	Issue No.	20
LM End	4.29	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.144471 °	38.143652 °
				-121.601381 °	-121.600877 °
DWR ID	DWR_NA0002_01_f_2013_20				
Comment Code					
LI : Landscape Irrigation					
Inspector Comment					
Sprinkler system on waterside of levee.					

Photo 1 of 1 : SP_2016_NA0002_62_20_20160308_00017.jpg



Looking south at a sprinkler system on waterward slope.

LM Start	4.25	Rating **	A/W	Issue No.	13
LM End	4.28	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.144134 °	38.143747 °
				-121.601177 °	-121.600924 °
DWR ID	DWR_NA0002_01_s_2012_13				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	4.36	Rating **	A/W	Issue No.	21
LM End	4.36	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.142838 °	38.142838 °
				-121.600163 °	-121.600163 °
DWR ID	DWR_NA0002_01_s_2012_21				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	4.63	Rating **	M	Issue No.	73
LM End	4.63	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.139401 °	38.139401 °
				-121.597678 °	-121.597678 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:13442
DS_ID:21781
EP_NO: 11237
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: Appears abandoned. Good candidate for video inspection.
FIELD_STRUCT_DESC: 3 of 3: 6-inch steel pipe through levee 3.6 feet below crown. 42-inch concrete standpipe on LS toe.. (ABO No. 11237, 1975). Originally included in the 1954 O&M manual.
FS Date: 5/15/2013

LM Start	4.63	Rating **	M	Issue No.	73 (cont)
LM End	4.63	Issue Type +	En	Location *	WS

Photo 1 of 2 : UCIP_SP_2016_13442_21942.jpg



Pipe visible just under the water surface

Photo 2 of 2 : UCIP_SP_2016_13442_21941.jpg



42-inch concrete riser on LS toe.

* Location	** Rating	+ Issue Type
LS : Land Side WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
N/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

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	4.64	Rating **	A/W	Issue No.	49
LM End	4.64	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.139211 °	38.139211 °
				-121.597582 °	-121.597582 °
DWR ID	DWR_NA0002_01_f_2015_49				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					

No Photos

LM Start	4.78	Rating **	M	Issue No.	24
LM End	4.78	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.137478 °	38.137472 °
				-121.596512 °	-121.596512 °
DWR ID	DWR_NA0002_01_s_2012_24				
Comment Code					
GA : Garbage					
Inspector Comment					
Landowner stockpiling wooden boards on landside shoulder.					

Photo 1 of 1 : SP_2016_NA0002_62_24_20160308_00023.jpg



Looking northwest at wooden boards on landside shoulder.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	4.79	Rating **	M	Issue No.	81
LM End	4.79	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.137306 °	38.137306 °
				-121.596371 °	-121.596371 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:41562 DS_ID:21782 EP_NO: 11233 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Need to verify type of abandonment. FIELD_STRUCT_DESC: 2.5-inch pipe through levee 3.2 feet below crown. Found pipe in water on WS toe. (ABO No. 11233, 1975). FS Date: 5/15/2013					

Photo 1 of 1 : UCIP_SP_2016_41562_21935.jpg



Pipe found at WS shoreline.

LM Start	4.83	Rating **	M	Issue No.	48
LM End	4.83	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.136839 °	38.136839 °
				-121.595994 °	-121.595994 °
DWR ID	DWR_NA0002_01_f_2015_48				
Comment Code					
FE : Fence					
Inspector Comment					
Unauthorized fence at landward toe.					

Photo 1 of 2 : SP_2016_NA0002_62_48_20160308_00038.jpg



Looking at close-up view of fence at landward toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	4.83	Rating **	M	Issue No.	48 (cont)	
LM End	4.83	Issue Type +	En	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			38.136839 °		38.136839 °
				-121.595994 °		-121.595994 °
DWR ID	DWR_NA0002_01_f_2015_48					
Comment Code						
FE : Fence						
Inspector Comment						
Unauthorized fence at landward toe.						

Photo 2 of 2 : SP_2016_NA0002_62_48_20160308_00039.jpg



Looking southwest at unfinished fence at landward toe.

LM Start	4.97	Rating **	A/W	Issue No.	1
LM End	4.97	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.135235 °	38.135235 °
				-121.594275 °	-121.594275 °
DWR ID	DWR_NA0002_01_s_2015_1				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Wild rose on landward slope and toe.					

No Photos

LM Start	4.98	Rating **	A/W	Issue No.	14
LM End	4.98	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.135158 °	38.135158 °
				-121.594198 °	-121.594198 °
DWR ID	DWR_NA0002_01_s_2012_14				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.11	Rating **	A/W	Issue No.	15
LM End	5.11	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.133759 °	38.133759 °
				-121.592598 °	-121.592598 °
DWR ID	DWR_NA0002_01_s _ 2012_15				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					

No Photos

LM Start	5.12	Rating **	M	Issue No.	65
LM End	5.12	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.133695 °	38.133695 °
				-121.592516 °	-121.592516 °
DWR ID	DWR_NA0002_01_s _ 2016_65				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Remove cactus from landward slope.					

Photo 1 of 1 : SP_2016_NA0002_62_65_20160323_00103.jpg



Looking south at cactus on landward slope.

LM Start	5.13	Rating **	M	Issue No.	66
LM End	5.13	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.133600 °	38.133600 °
				-121.592414 °	-121.592414 °
DWR ID	DWR_NA0002_01_s _ 2016_66				
Comment Code					
BU : Building					
Inspector Comment					
Storage container at landward toe has been in place for several years.					

Photo 1 of 1 : SP_2016_NA0002_62_66_20160323_00104.jpg



Looking west at storage container at landward toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.17	Rating **	A/W	Issue No.	31
LM End	5.17	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.133145 °	38.133145 °
				-121.591895 °	-121.591895 °
DWR ID	DWR_NA0002_01_s _ 2013_31				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					

No Photos

LM Start	5.25	Rating **	M	Issue No.	61
LM End	5.25	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.132261 °	38.132261 °
				-121.590914 °	-121.590914 °
DWR ID	DWR_NA0002_01_s _ 2015_61				
Comment Code					
V6 : Landscaping					
Inspector Comment					
Overgrowth landscaping on waterward slope.					

LM Start	5.25	Rating **	M	Issue No.	61 (cont)
LM End	5.25	Issue Type +	En	Location *	WS

Photo 1 of 2 : SP_2016_NA0002_62_61_20160308_00056.jpg

Looking northeast at overgrowth landscaping on waterward slope.
(Spring 2015)

Photo 2 of 2 : SP_2016_NA0002_62_61_20160308_00057.jpg

Looking southeast at overgrowth landscaping on waterward slope.
(Spring 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	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.25	Rating **	M	Issue No.	16
LM End	5.25	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.132238 °	38.132238 °
				-121.590897 °	-121.590897 °
DWR ID	DWR_NA0002_01_s_2012_16				
Comment Code					
V6 : Landscaping					
Inspector Comment					

No Photos

LM Start	5.26	Rating **	M	Issue No.	60
LM End	5.26	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.132199 °	38.132199 °
				-121.590855 °	-121.590855 °
DWR ID	DWR_NA0002_01_s_2015_60				
Comment Code					
GA : Garbage					
Inspector Comment					
An abandoned child's swing set at the waterward toe.					

Photo 1 of 1 : SP_2016_NA0002_62_60_20160308_00055.jpg



Looking northeast at abandoned child's swing set at waterward toe.

LM Start	5.29	Rating **	M	Issue No.	47
LM End	5.29	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.131802 °	38.131802 °
				-121.590465 °	-121.590465 °
DWR ID	DWR_NA0002_01_f_2015_47				
Comment Code					
PR : Prunings					
Inspector Comment					
Prunings piles on waterward berm should be removed or burned.					

Photo 1 of 1 : SP_2016_NA0002_62_47_20160308_00037.jpg



Looking at pruning piles on waterward berm.

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

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

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.33	Rating **	M	Issue No.	2
LM End	5.33	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.131327 °	38.131327 °
				-121.589980 °	-121.589980 °
DWR ID	DWR_NA0002_01_s _ 2012_2				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_62_2_20160308_00002.jpg



Looking at untrimmed trees on waterward slope.

LM Start	5.36	Rating **	M	Issue No.	69
LM End	5.36	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.131048 °	38.131048 °
				-121.589655 °	-121.589655 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:13090 DS_ID:21816 EP_NO: 11245 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned. Pipe at slide gate in riser on LS toe is rusted through. FIELD_STRUCT_DESC: 1 of 2: 14-inch steel pipe through levee 3.8 feet below crown (ABO 11245, 1975). 2" primer valve and 48-inch concrete standpipe on LS. Originally included in the 1954 O&M manual. FS Date: 5/8/2013					

Photo 1 of 2 : UCIP_SP_2016_13090_21282.jpg



Filler pipe and standpipe on LS.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.36	Rating **	M	Issue No.	69 (cont)	
LM End	5.36	Issue Type +	En	Location *	WS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.131048 °	38.131048 °	
				-121.589655 °	-121.589655 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:13090 DS_ID:21816 EP_NO: 11245 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Appears abandoned. Pipe at slide gate in riser on LS toe is rusted through. FIELD_STRUCT_DESC: 1 of 2: 14-inch steel pipe through levee 3.8 feet below crown (ABO 11245, 1975). 2" primer valve and 48-inch concrete standpipe on LS. Originally included in the 1954 O&M manual. FS Date: 5/8/2013						

Photo 2 of 2 : UCIP_SP_2016_13090_21281.jpg



Slide gate in 48-inch Concrete riser on LS toe.

LM Start	5.42	Rating **	M	Issue No.	54
LM End	5.42	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.130335 °	38.130335 °
				-121.588920 °	-121.588920 °
DWR ID	DWR_NA0002_01_s_2014_54				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_62_54_20160308_00048.jpg



Looking at dense trees at landward toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.43	Rating **	U	Issue No.	23
LM End	5.54	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.130253 °	38.129451 °
				-121.588822 °	-121.587062 °
DWR ID	DWR_NA0002_01_s _ 2012_23				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Control vegetation at landside toe.					

LM Start	5.43	Rating **	U	Issue No.	23 (cont)
LM End	5.54	Issue Type +	Ma	Location *	LS

Photo 1 of 6 : SP_2016_NA0002_62_23_20160323_00105.jpg



Looking south at vegetation at landward toe. (Spring 2016)

Photo 2 of 6 : SP_2016_NA0002_62_23_20160308_00018.jpg



Looking west at dense vegetation at landward toe.

LM Start	5.43	Rating **	U	Issue No.	23 (cont)
LM End	5.54	Issue Type +	Ma	Location *	LS

Photo 3 of 6 : SP_2016_NA0002_62_23_20160308_00019.jpg



Looking east at dense vegetation at landward toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.43	Rating **	U	Issue No.	23 (cont)	
LM End	5.54	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			38.130253 °		38.129451 °
				-121.588822 °		-121.587062 °
DWR ID	DWR_NA0002_01_s _ 2012_23					
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment						
Control vegetation at landside toe.						

LM Start	5.43	Rating **	U	Issue No.	23 (cont)
LM End	5.54	Issue Type +	Ma	Location *	LS

Photo 4 of 6 : SP_2016_NA0002_62_23_20160308_00020.jpg



Looking east at dense vegetation on landward toe.

Photo 5 of 6 : SP_2016_NA0002_62_23_20160308_00021.jpg



Looking south at dense berry vines and trees on the landward slope and toe.

LM Start	5.43	Rating **	U	Issue No.	23 (cont)
LM End	5.54	Issue Type +	Ma	Location *	LS

Photo 6 of 6 : SP_2016_NA0002_62_23_20160308_00022.jpg



Looking south at trees, berry vines, and wild rose on landside toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.64	Rating **	A/W	Issue No.	18
LM End	5.67	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.129240 °	38.129252 °
				-121.585328 °	-121.584723 °
DWR ID	DWR_NA0002_01_s _ 2012_18				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

LM Start	5.65	Rating **	M	Issue No.	64
LM End	5.65	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.129243 °	38.129243 °
				-121.585098 °	-121.585098 °
DWR ID	DWR_NA0002_01_s _ 2016_64				
Comment Code					
PR : Prunings					
Inspector Comment					
Prunings on landward slope.					

Photo 1 of 1 : SP_2016_NA0002_62_64_20160323_00106.jpg



Looking southwest at prunings at landward toe and berm.

LM Start	5.70	Rating **	A/W	Issue No.	19
LM End	5.70	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.129307 °	38.129307 °
				-121.584253 °	-121.584253 °
DWR ID	DWR_NA0002_01_s _ 2012_19				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.72	Rating **	U	Issue No.	53
LM End	5.72	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.129392 °	38.129392 °
				-121.583782 °	-121.583782 °
DWR ID	DWR_NA0002_01_s _ 2014_53				
Comment Code					
MA : Material					
Inspector Comment					
Concrete slabs on water ward berm area. Possible undermining. The Slab should be removed or broken up in place to meet Title 23 standard for Rip Rap.					

LM Start	5.72	Rating **	U	Issue No.	53 (cont)
LM End	5.72	Issue Type +	En	Location *	WS

Photo 1 of 4 : SP_2016_NA0002_62_53_20160308_00044.jpg



Looking north at a collapsed concrete slab on waterward berm.

Photo 2 of 4 : SP_2016_NA0002_62_53_20160308_00045.jpg



Looking south at south end of a concrete slab on waterward berm.

LM Start	5.72	Rating **	U	Issue No.	53 (cont)
LM End	5.72	Issue Type +	En	Location *	WS

Photo 3 of 4 : SP_2016_NA0002_62_53_20160308_00046.jpg



Looking north at a collapsed concrete slab on waterward berm.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.72	Rating **	U	Issue No.	53 (cont)	
LM End	5.72	Issue Type +	En	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			38.129392 °		38.129392 °
				-121.583782 °		-121.583782 °
DWR ID	DWR_NA0002_01_s _ 2014_53					
Comment Code						
MA : Material						
Inspector Comment						
Concrete slabs on water ward berm area. Possible undermining. The Slab should be removed or broken up in place to meet Title 23 standard for Rip Rap.						

Photo 4 of 4 : SP_2016_NA0002_62_53_20160308_00047.jpg



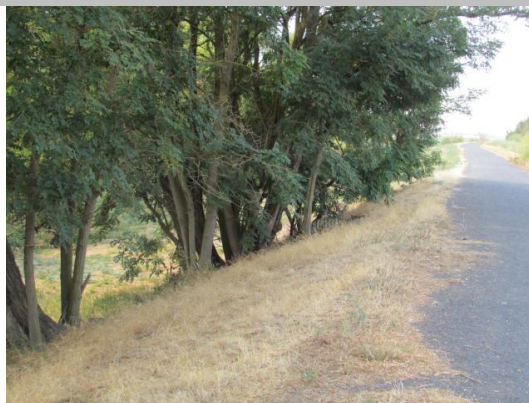
Looking south at a collapsed concrete slab on waterward berm.

LM Start	5.75	Rating **	A/W	Issue No.	34
LM End	5.82	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.129462 °	38.129608 °
				-121.583337 °	-121.582085 °
DWR ID	DWR_NA0002_01_f _ 2013_34				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

No Photos

LM Start	5.78	Rating **	M	Issue No.	17
LM End	5.81	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.129537 °	38.129599 °
				-121.582760 °	-121.582155 °
DWR ID	DWR_NA0002_01_s _ 2012_17				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					
Trim trees for visibility.					

Photo 1 of 1 : SP_2016_NA0002_62_17_20160308_00014.jpg



Looking at dense trees on landward slope and toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Georgiana Slough	Right	6.01	03/22/2016 03/22/2016	Richard Willoughby

LM Start	5.84	Rating **	M	Issue No.	52
LM End	5.84	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.129649 °	38.129649 °
				-121.581688 °	-121.581688 °
DWR ID	DWR_NA0002_01_s _ 2014_52				
Comment Code					
V6 : Landscaping					
Inspector Comment					
Fruit trees and other trees on landward toe blocking view.					

LM Start	5.84	Rating **	M	Issue No.	52 (cont)
LM End	5.84	Issue Type +	En	Location *	LS

Photo 1 of 2 : SP_2016_NA0002_62_52_20160308_00042.jpg



Looking west at dense trees on landward slope & toe.

Photo 2 of 2 : SP_2016_NA0002_62_52_20160308_00043.jpg



Looking east at dense trees on landward slope and toe.

LM Start	5.88	Rating **	M	Issue No.	51
LM End	5.88	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.129722 °	38.129722 °
				-121.580823 °	-121.580823 °
DWR ID	DWR_NA0002_01_f _ 2014_51				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					
Tree should be trimmed back from hanging over levee crown.					

Photo 1 of 1 : SP_2016_NA0002_62_51_20160308_00041.jpg



Looking at tree overhanging levee crown.

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

Unit Cover Sheet

Spring 2016 Levee Inspection Results

Brannan Andrus Levee Maintenance District

Waterway			Bank	Unit Miles
Unit No. 02 Sacramento River			Left	11.54
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	3/21/2016 - 3/22/2016			
DWR Inspector	Richard Willoughby			
Accompanied By	Gilbert Labrie DCC Engineering Co, Inc			

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

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	0.00	Rating **	M	Issue No.	108
LM End	11.12	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.191879 °	38.112113 °
				-121.567724 °	-121.698050 °
DWR ID	DWR_NA0002_02_s _ 2016_108				
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.	90
LM End	11.12	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.191878 °	38.112113 °
				-121.567724 °	-121.698051 °
DWR ID	DWR_NA0002_02_s _ 2016_90				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	0.43	Rating **	M	Issue No.	26
LM End	0.43	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.189212 °	38.189212 °
				-121.574757 °	-121.574757 °
DWR ID	DWR_NA0002_02_s _ 2012_26				
Comment Code					
FE : Fence					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_63_26_20160308_00024.jpg



Looking northeast at fence on landward shoulder and slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	0.49	Rating **	M	Issue No.	39
LM End	0.49	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.188872 °	38.188872 °
				-121.575775 °	-121.575775 °
DWR ID	DWR_NA0002_02_f_2013_39				
Comment Code					
BU : Building					
Inspector Comment					
Storage container at landward toe.					

Photo 1 of 1 : SP_2016_NA0002_63_39_20160308_00036.jpg



Looking east at storage container at landward toe.

LM Start	0.49	Rating **	M	Issue No.	40
LM End	0.49	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.188871 °	38.188871 °
				-121.575775 °	-121.575775 °
DWR ID	DWR_NA0002_02_f_2013_40				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Berryvines at landward toe.					

Photo 1 of 3 : SP_2016_NA0002_63_40_20160308_00037.jpg



Looking southeast at berryvines at landward toe.

LM Start	0.49	Rating **	M	Issue No.	40 (cont)
LM End	0.49	Issue Type +	Ma	Location *	LS

Photo 2 of 3 : SP_2016_NA0002_63_40_20160308_00038.jpg



Looking east at berryvines at landward toe.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	0.49	Rating **	M	Issue No.	40 (cont)	
LM End	0.49	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			38.188871 °		38.188871 °
				-121.575775 °		-121.575775 °
DWR ID	DWR_NA0002_02_f_2013_40					
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment						
Berryvines at landward toe.						

Photo 3 of 3 : SP_2016_NA0002_63_40_20160308_00039.jpg



Looking northeast at berryvines at landward toe.

LM Start	0.66	Rating **	M	Issue No.	1
LM End	0.66	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.187672 °	38.187672 °
				-121.578496 °	-121.578496 °
DWR ID	DWR_NA0002_02_s_2012_1				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	0.79	Rating **	U	Issue No.	2
LM End	0.84	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.186535 °	38.186103 °
				-121.580395 °	-121.581127 °
DWR ID	DWR_NA0002_02_s_2012_2				
Comment Code					
T2 : Thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					
Untrimmed trees within twenty foot zone on waterward slope.					

Photo 1 of 1 : SP_2016_NA0002_63_2_20160308_00001.jpg



Looking south at dense willows and trees on waterward slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	0.80	Rating **	U	Issue No.	8
LM End	0.83	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.186455 °	38.186215 °
				-121.580712 °	-121.581060 °
DWR ID	DWR_NA0002_02_s _ 2012_8				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 3 : SP_2016_NA0002_63_8_20160323_00164.jpg



Looking northeast at dense landscaping on landward slope and toe.
(Spring 2016)

LM Start	0.80	Rating **	U	Issue No.	8 (cont)
LM End	0.83	Issue Type +	En	Location *	LS

Photo 2 of 3 : SP_2016_NA0002_63_8_20160308_00006.jpg



Looking southeast at dense landscaping on landside slope.

LM Start	0.80	Rating **	U	Issue No.	8 (cont)
LM End	0.83	Issue Type +	En	Location *	LS

Photo 3 of 3 : SP_2016_NA0002_63_8_20160308_00007.jpg



Landscaping on landside slope blocking view of slope from LM .81 to 0.83.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	0.83	Rating **	M	Issue No.	118
LM End	0.83	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.186199 °	38.186199 °
				-121.580968 °	-121.580968 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12164 DS_ID:21868 EP_NO: 1173 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Several patches on pipe, walkway in disrepair and 24-inch standpipe for siphon breaker on LS slope has been dislodged from the LS slope and rests at LS toe. Pipe appears to be failing at multiple places due to corrosion. FIELD_STRUCT_DESC: 2 of 4: 12-inch pipe through levee 7.0 feet below the crown. Pump on pile structure with a walkway in the river. Siphon breaker in 24-inch CMP riser on LS slope with a 7X9-foot concrete distribution box on LS toe. Service pole on the landward slope with a 1.5-inch galvanized iron electrical conduit at the same location. (Permit No. 1173, 1947). Included in the 1954 O&M manual. FS Date: 4/18/2013					

LM Start	0.83	Rating **	M	Issue No.	118 (cont)
LM End	0.83	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_12164_19726.jpg



Pump on pile structure with walkway on WS berm.

Photo 2 of 2 : UCIP_SP_2016_12164_19725.jpg



1.5-inch galvanized iron electrical conduit at same location as 12-inch pipe on WS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.07	Rating **	M	Issue No.	91
LM End	1.07	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.183586 °	38.183586 °
				-121.584010 °	-121.584010 °
DWR ID	DWR_NA0002_02_f_2015_91				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Downed tree branches on waterward slope and berm.					

LM Start	1.07	Rating **	M	Issue No.	91 (cont)
LM End	1.07	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : SP_2016_NA0002_63_91_20160308_00057.jpg



Looking south west at fallen tree on waterward slope and berm.

Photo 2 of 2 : SP_2016_NA0002_63_91_20160308_00058.jpg



Looking west at fallen tree on waterward slope and berm.

LM Start	1.16	Rating **	M	Issue No.	92
LM End	1.16	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.182527 °	38.182527 °
				-121.584901 °	-121.584901 °
DWR ID	DWR_NA0002_02_f_2015_92				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Downed tree branch on waterward slope and berm.					

Photo 1 of 2 : SP_2016_NA0002_63_92_20160323_00165.jpg



Looking west at fallen tree branch on waterward berm. (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	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.16	Rating **	M	Issue No.	92 (cont)	
LM End	1.16	Issue Type +	En	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start	End	
Item	Encroachments			38.182527 °	38.182527 °	
				-121.584901 °	-121.584901 °	
DWR ID	DWR_NA0002_02_f_2015_92					
Comment Code						
TR : Tree or limb						
Inspector Comment						
Downed tree branch on waterward slope and berm.						

Photo 2 of 2 : SP_2016_NA0002_63_92_20160308_00059.jpg



Looking at fallen tree on waterward slope and berm. (Spring 2015)

LM Start	1.39	Rating **	M	Issue No.	119
LM End	1.39	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.179666 °	38.179666 °
				-121.587109 °	-121.587109 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12165 DS_ID:21869 EP_NO: 11261 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe abandoned and should be done so properly. Pipe open on WS. FIELD_STRUCT_DESC: 8-inch pipe through levee 6.5 feet below crown. Pump in pump house on berm. 7'X9' concrete distribution box on LS toe. Service poles on the landward slope with a 1.5-inch galvanized steel electrical conduit at same location (ABO No. 11261, 1975). Originally included in the 1954 O&M manual. FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_12165_19731.jpg



JP on LS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.39	Rating **	M	Issue No.	119 (cont)
LM End	1.39	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.179666 °	38.179666 °
				-121.587109 °	-121.587109 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12165 DS_ID:21869 EP_NO: 11261 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe abandoned and should be done so properly. Pipe open on WS. FIELD_STRUCT_DESC: 8-inch pipe through levee 6.5 feet below crown. Pump in pump house on berm. 7'X9' concrete distribution box on LS toe. Service poles on the landward slope with a 1.5-inch galvanized steel electrical conduit at same location (ABO No. 11261, 1975). Originally included in the 1954 O&M manual. FS Date: 4/18/2013					

Photo 2 of 2 : UCIP_SP_2016_12165_19730.jpg



Pipe and pumphouse on WS berm.

LM Start	1.40	Rating **	M	Issue No.	96
LM End	1.40	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.179543 °	38.179543 °
				-121.587226 °	-121.587226 °
DWR ID	DWR_NA0002_02_s_ 2015_96				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Broken tree branch on landward toe.					

Photo 1 of 1 : SP_2016_NA0002_63_96_20160308_00063.jpg



Looking east at broken tree limb at landward toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.43	Rating **	U	Issue No.	109
LM End	1.43	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.179171 °	38.179171 °
				-121.587529 °	-121.587529 °
DWR ID	DWR_NA0002_02_s_2016_109				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Downed tree branches and limbs on waterward.					

Photo 1 of 3 : SP_2016_NA0002_63_109_20160323_00167.jpg



Photo 2 of 3 : SP_2016_NA0002_63_109_20160323_00166.jpg



Looking west at tree limbs on waterward slope.

Photo 3 of 3 : SP_2016_NA0002_63_109_20160323_00168.jpg



LM Start	1.43	Rating **	U	Issue No.	109 (cont)
LM End	1.43	Issue Type +	En	Location *	WS

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.45	Rating **	U	Issue No.	27
LM End	1.47	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.178950 °	38.178950 °
				-121.587717 °	-121.587717 °
DWR ID	DWR_NA0002_02_s _ 2012_27				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					
Dense vegetation should be trimmed back fifteen feet from landward toe.					

LM Start	1.45	Rating **	U	Issue No.	27 (cont)
LM End	1.47	Issue Type +	Ma	Location *	LS

Photo 1 of 4 : SP_2016_NA0002_63_27_20160323_00169.jpg



Looking east at dense vegetation at landward toe.

Photo 2 of 4 : SP_2016_NA0002_63_27_20160323_00170.jpg



Looking east at dense vegetation at landward toe.

LM Start	1.45	Rating **	U	Issue No.	27 (cont)
LM End	1.47	Issue Type +	Ma	Location *	LS

Photo 3 of 4 : SP_2016_NA0002_63_27_20160308_00025.jpg



Looking north at dense vegetation on landward toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.45	Rating **	U	Issue No.	27 (cont)	
LM End	1.47	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Trim / Thin Trees			38.178950 °		38.178950 °
				-121.587717 °		-121.587717 °
DWR ID	DWR_NA0002_02_s _ 2012_27					
Comment Code						
T1 : Trim trees to at least five feet above ground level.						
Inspector Comment						
Dense vegetation should be trimmed back fifteen feet from landward toe.						

Photo 4 of 4 : SP_2016_NA0002_63_27_20160308_00026.jpg



Looking southeast at dense trees on landside toe.

LM Start	1.60	Rating **	M	Issue No.	35
LM End	1.62	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.177105 °	38.176837 °
				-121.589058 °	-121.589225 °
DWR ID	DWR_NA0002_02_s _ 2012_35				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.61	Rating **	M	Issue No.	120
LM End	1.61	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.176874 °	38.176874 °
				-121.589200 °	-121.589200 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12183					
DS_ID:21870					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe appears abandoned and should be done so properly.					
FIELD_STRUCT_DESC: 6-inch steel irrigation pipe through the levee					
5.8 feet below the crown. 3'X3' concrete distribution box at LS toe.					
PVC standpipe at WS toe. Hose bib attachment on pipe at LS toe.					
FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_12183_19742.jpg



Concrete distribution box on LS toe.

LM Start	1.61	Rating **	M	Issue No.	120 (cont)
LM End	1.61	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_SP_2016_12183_19741.jpg



Distribution box and hose bib on LS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.65	Rating **	C	Issue No.	3
LM End	1.65	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.176469 °	38.176469 °	
			-121.589533 °	-121.589533 °	
DWR ID	DWR_NA0002_02_s_2012_3				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

LM Start	1.69	Rating **	C	Issue No.	97
LM End	1.69	Issue Type +	Ma	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.175957 °	38.175957 °	
			-121.589837 °	-121.589837 °	
DWR ID	DWR_NA0002_02_f_2014_97				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

LM Start	1.80	Rating **	A/W	Issue No.	98
LM End	1.80	Issue Type +	En	Location *	LS
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Encroachments		38.174466 °	38.174466 °	
			-121.590791 °	-121.590791 °	
DWR ID	DWR_NA0002_02_f_2014_98				
Comment Code					
BU : Building					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.80	Rating **	U	Issue No.	45
LM End	1.82	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.174437 °	38.174153 °
				-121.590786 °	-121.590980 °
DWR ID	DWR_NA0002_02_f_2013_45				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Dense vegetation on landward slope and toe					

LM Start	1.80	Rating **	U	Issue No.	45 (cont)
LM End	1.82	Issue Type +	Ma	Location *	LS

Photo 1 of 2 : SP_2016_NA0002_63_45_20160308_00041.jpg



Looking southeast at dense vegetation on landward slope.

Photo 2 of 2 : SP_2016_NA0002_63_45_20160308_00042.jpg



Looking north at dense vegetation on landward slope and toe.

LM Start	1.80	Rating **	A/W	Issue No.	46
LM End	1.80	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.174433 °	38.174433 °
				-121.590792 °	-121.590792 °
DWR ID	DWR_NA0002_02_f_2013_46				
Comment Code					
BU : Building					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.81	Rating **	M	Issue No.	28
LM End	1.81	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.174302 °	38.174302 °
				-121.590863 °	-121.590863 °
DWR ID	DWR_NA0002_02_s_2012_28				
Comment Code					
V6 : Landscaping					
Inspector Comment					
Cactus on landward slope.					

Photo 1 of 1 : SP_2016_NA0002_63_28_20160308_00027.jpg



Looking northeast at cactus on landward slope and toe.

LM Start	1.83	Rating **	M	Issue No.	54
LM End	1.83	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.174097 °	38.174097 °
				-121.591002 °	-121.591002 °
DWR ID	DWR_NA0002_02_f_2013_54				
Comment Code					
TA : Tank					
Inspector Comment					
Propane tank on landward slope.					

Photo 1 of 1 : SP_2016_NA0002_63_54_20160308_00049.jpg



Looking southeast at propane tank on landward slope and toe.

LM Start	1.84	Rating **	A/W	Issue No.	4
LM End	1.84	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.173905 °	38.173905 °
				-121.591082 °	-121.591082 °
DWR ID	DWR_NA0002_02_s_2012_4				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.87	Rating **	A/W	Issue No.	93
LM End	1.89	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.173571 °	38.173288 °
				-121.591343 °	-121.591531 °
DWR ID	DWR_NA0002_02_f_2015_93				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Broken tree limbs on landward slope and toe.					

LM Start	1.87	Rating **	A/W	Issue No.	93 (cont)
LM End	1.89	Issue Type +	En	Location *	LS

Photo 1 of 2 : SP_2016_NA0002_63_93_20160308_00060.jpg



Looking southeast at broken tree limb on landward slope.

Photo 2 of 2 : SP_2016_NA0002_63_93_20160308_00061.jpg



Looking northeast at broken tree limb at landward toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.90	Rating **	M	Issue No.	121
LM End	1.90	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.173197°	38.173197°
				-121.591552°	-121.591552°
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12185 DS_ID:21872 EP_NO: 11294 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe abandoned on both sides. Pipe should be abandoned properly. FIELD_STRUCT_DESC: 6-inch pipe through the levee 6.5 feet below the crown. Pump in pumphouse on the water ward slope. 1-inch galvanized iron steel electrical conduit at same location (ABO No. 11294, 1975). Originally included in the 1954 O&M manual. FS Date: 4/18/2013					

LM Start	1.90	Rating **	M	Issue No.	121 (cont)
LM End	1.90	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_12185_19751.jpg



Pumphouse on WS slope.

Photo 2 of 2 : UCIP_SP_2016_12185_19750.jpg



Pipe and shutoff valve at pumphouse on WS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	1.90	Rating **	U	Issue No.	12
LM End	1.94	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.173120 °	38.172598 °
				-121.591505 °	-121.591853 °
DWR ID	DWR_NA0002_02_s _ 2012_12				
Comment Code					
V6 : Landscaping					
Inspector Comment					

LM Start	1.90	Rating **	U	Issue No.	12 (cont)
LM End	1.94	Issue Type +	En	Location *	LS

Photo 1 of 2 : SP_2016_NA0002_63_12_20160308_00012.jpg



Looking south at dense landscaping on landside slope and toe.

Photo 2 of 2 : SP_2016_NA0002_63_12_20160308_00013.jpg



Landscaping on landside slope blocking view of slope from LM 1.91 to 1.95.

LM Start	2.34	Rating **	U	Issue No.	25
LM End	2.38	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.167627 °	38.167152 °
				-121.595538 °	-121.595997 °
DWR ID	DWR_NA0002_02_s _ 2012_25				
Comment Code					
T2 : Thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_63_25_20160308_00023.jpg



Looking southeast at trees at landward shoulder. (Spring 2015)

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.42	Rating **	M	Issue No.	122
LM End	2.42	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.166819 °	38.166819 °
				-121.596590 °	-121.596590 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12211 DS_ID:21878 EP_NO: 11263 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Further investigation to determine location of pipe should be done. Pumphouse needs to be unlocked to gather additional information. FIELD_STRUCT_DESC: 8-inch pipe through levee 3.7 feet below crown. Pump in pump house on the waterward berm (ABO No. 11263, 1975). 30" concrete standpipe landward side. Originally included in the 1954 O&M manual. FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_12211_19770.jpg



Possible pumphouse on WS shoulder.

LM Start	2.42	Rating **	M	Issue No.	122 (cont)
LM End	2.42	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_SP_2016_12211_19769.jpg



Evidence of pipe (buried) on LS in ditch.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.42	Rating **	U	Issue No.	99
LM End	2.42	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.166772 °	38.166772 °
				-121.596667 °	-121.596667 °
DWR ID	DWR_NA0002_02_s _ 2014_99				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Dense willows on landward slope.					

LM Start	2.42	Rating **	U	Issue No.	99 (cont)
LM End	2.42	Issue Type +	Ma	Location *	LS

Photo 1 of 2 : SP_2016_NA0002_63_99_20160323_00171.jpg



Looking southwest at vegetation (willows) on landward slope and toe.

Photo 2 of 2 : SP_2016_NA0002_63_99_20160323_00172.jpg



LM Start	2.48	Rating **	U	Issue No.	29
LM End	2.48	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.166378 °	38.166378 °
				-121.597570 °	-121.597570 °
DWR ID	DWR_NA0002_02_s _ 2012_29				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 2 : SP_2016_NA0002_63_29_20160308_00028.jpg



Looking north at dense vegetation on landward slope.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.48	Rating **	U	Issue No.	29 (cont)	
LM End	2.48	Issue Type +	En	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Trim / Thin Trees			38.166378 °		38.166378 °
				-121.597570 °		-121.597570 °
DWR ID	DWR_NA0002_02_s _ 2012_29					
Comment Code						
T1 : Trim trees to at least five feet above ground level.						
Inspector Comment						

Photo 2 of 2 : SP_2016_NA0002_63_29_20160308_00029.jpg



Looking south at dense vegetation on landward slope.

LM Start	2.54	Rating **	U	Issue No.	123
LM End	2.54	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.165980 °	38.165980 °
				-121.598520 °	-121.598520 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12212 DS_ID:21879 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Culvert open on both ends. Needs to be abandoned properly. FIELD_STRUCT_DESC: *Abandoned* 3 x 3.5-foot open concrete culvert through levee 6.0-inches below the crown. Originally included in the 1954 O&M manual. FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_12212_19773.jpg



Concrete tunnel open on both ends.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.54	Rating **	U	Issue No.	123 (cont)
LM End	2.54	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.165980 °	38.165980 °
				-121.598520 °	-121.598520 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12212 DS_ID:21879 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Culvert open on both ends. Needs to be abandoned properly. FIELD_STRUCT_DESC: *Abandoned* 3 x 3.5-foot open concrete culvert through levee 6.0-inches below the crown. Originally included in the 1954 O&M manual. FS Date: 4/18/2013					

Photo 2 of 2 : UCIP_SP_2016_12212_19772.jpg



Top of concrete tunnel on LS shoulder.

LM Start	2.57	Rating **	U	Issue No.	124
LM End	2.57	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.165775 °	38.165775 °
				-121.599048 °	-121.599048 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12213					
DS_ID:21880					
EP_NO: N/A					
Repair Type: Urgent					
Crossing Status: Found					
UCIP Comments: tunnel should be abandoned properly.					
FIELD_STRUCT_DESC: *Abandoned* 4.0 x 4.0-foot open concrete culvert through levee 6.5-inches below the crown. Originally included in the 1954 O&M manual.					
FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_12213_19776.jpg



Tunnel open on LS shoulder.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.57	Rating **	U	Issue No.	124 (cont)
LM End	2.57	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.165775 °	38.165775 °
				-121.599048 °	-121.599048 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12213 DS_ID:21880 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: tunnel should be abandoned properly. FIELD_STRUCT_DESC: *Abandoned* 4.0 x 4.0-foot open concrete culvert through levee 6.5-inches below the crown. Originally included in the 1954 O&M manual. FS Date: 4/18/2013					

Photo 2 of 2 : UCIP_SP_2016_12213_19775.jpg



Concrete tunnel on LS shoulder.

LM Start	2.58	Rating **	M	Issue No.	18
LM End	2.63	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.165945 °	38.165498 °
				-121.599345 °	-121.600080 °
DWR ID	DWR_NA0002_02_s_2016_18				
Comment Code					
Inspector Comment					
2009 - Short reach of vertical bank at the toe. 2010 - Large tree is getting ready to fall in. 2015: Freshly exposed tree roots. [2015 Site ID: SAC_18-1_L]					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.66	Rating **	M	Issue No.	37
LM End	2.74	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.165303 °	38.164682 °
				-121.600477 °	-121.601804 °
DWR ID	DWR_NA0002_02_s _ 2016_37				
Comment Code					
Inspector Comment					
2009 - Large scallop from rotational failure. One fallen tree and one large tree with half of its root structure exposed. 2015: Large tree expected to pop out within next couple of years, will take very large chunk of levee out. [2015 Site ID: SAC_18-0_L]					

LM Start	2.66	Rating **	M	Issue No.	37 (cont)
LM End	2.74	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : SP_2016_NA0002_63_37_20160308_00034.jpg



USACE 2013 Photo #1

Photo 2 of 2 : SP_2016_NA0002_63_37_20160308_00035.jpg



USACE 2013 Photo #2

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.75	Rating **	M	Issue No.	125
LM End	2.75	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.164432 °	38.164432 °
				-121.601918 °	-121.601918 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12214					
DS_ID:21881					
EP_NO: 2005					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe appears abandoned and rusty. It should be abandoned properly if it is no longer in use.					
FIELD_STRUCT_DESC: 18-inch sewer discharge line through levee 4.0 feet below crown. Two pile dolphins in stream, fire hydrant on landward shoulder (Permit No. 2005, 1959).					
FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_12214_19778.jpg



Pipe, pile structure, and dolphins on WS.

LM Start	2.75	Rating **	M	Issue No.	125 (cont)
LM End	2.75	Issue Type +	En	Location *	WS

Photo 2 of 2 : UCIP_SP_2016_12214_19777.jpg



Pipe on pier at WS.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.81	Rating **	M	Issue No.	94
LM End	2.81	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.164077 °	38.164077 °
				-121.602853 °	-121.602853 °
DWR ID	DWR_NA0002_02_f_2015_94				
Comment Code					
FE : Fence					
Inspector Comment					
Discard downed fence on landward shoulder.					

Photo 1 of 1 : SP_2016_NA0002_63_94_20160308_00062.jpg



Looking northeast at downed fence on landward shoulder.

LM Start	2.84	Rating **	U	Issue No.	126
LM End	2.84	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.163850 °	38.163850 °
				-121.603317 °	-121.603317 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12216 DS_ID:21882 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Tunnel open on both ends and should be abandoned properly. FIELD_STRUCT_DESC: *Abandoned* 4'X6' open concrete culvert through levee 1.0 foot below the crown. Originally included in the 1954 O&M manual. FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_12216_19782.jpg



Entrance to tunnel on LS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.84	Rating **	U	Issue No.	126 (cont)	
LM End	2.84	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.163850 °	38.163850 °	
				-121.603317 °	-121.603317 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:12216 DS_ID:21882 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: Tunnel open on both ends and should be abandoned properly. FIELD_STRUCT_DESC: *Abandoned* 4'X6' open concrete culvert through levee 1.0 foot below the crown. Originally included in the 1954 O&M manual. FS Date: 4/18/2013						

Photo 2 of 2 : UCIP_SP_2016_12216_19781.jpg



Tunnel opening on WS slope.

LM Start	2.90	Rating **	M	Issue No.	127
LM End	2.90	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.163475 °	38.163475 °
				-121.604221 °	-121.604221 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12217					
DS_ID:21883					
EP_NO: 11269					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe needs to be abandoned properly if it is truly abandoned.					
FIELD_STRUCT_DESC: 8-inch pipe through levee 8.7 feet below crown. Pump in pump house on the waterward slope. Slide gate in pumphouse. Pipe not visible on LS. (ABO No. 11269,1975). Originally included in the 1959 O&M manual.					
FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_12217_19785.jpg



Pumphouse on WS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.90	Rating **	M	Issue No.	127 (cont)	
LM End	2.90	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.163475 °		38.163475 °
				-121.604221 °		-121.604221 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:12217						
DS_ID:21883						
EP_NO: 11269						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: Pipe needs to be abandoned properly if it is truly abandoned.						
FIELD_STRUCT_DESC: 8-inch pipe through levee 8.7 feet below crown. Pump in pump house on the waterward slope. Slide gate in pumphouse. Pipe not visible on LS. (ABO No. 11269,1975). Originally included in the 1959 O&M manual.						
FS Date: 4/18/2013						

Photo 2 of 2 : UCIP_SP_2016_12217_19784.jpg



Slide gate in pumphouse on WS slope.

LM Start	2.91	Rating **	M	Issue No.	150
LM End	2.91	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.163413 °	38.163413 °
				-121.604399 °	-121.604399 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:16005 DS_ID:21884 EP_NO: 14173 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: If pipe is still in use it should be marked properly on levee. FIELD_STRUCT_DESC: 12-inch telephone conduit through levee 2.0 feet below crown and under channel (Permit No. 14173, 1985). Four 4-inch galvanized iron conductor pipe sleeved through it. Sign on WS slope of levee across river provides location for this crossing. FS Date: 4/18/2013					

Photo 1 of 2 : UCIP_SP_2016_16005_27067.jpg



Sign on opposite side of river provides indication of pipe location.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.91	Rating **	M	Issue No.	150 (cont)	
LM End	2.91	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.163413 °		38.163413 °
				-121.604399 °		-121.604399 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:16005 DS_ID:21884 EP_NO: 14173 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: If pipe is still in use it should be marked properly on levee. FIELD_STRUCT_DESC: 12-inch telephone conduit through levee 2.0 feet below crown and under channel (Permit No. 14173, 1985). Four 4-inch galvanized iron conductor pipe sleeved through it. Sign on WS slope of levee across river provides location for this crossing. FS Date: 4/18/2013						

Photo 2 of 2 : UCIP_SP_2016_16005_27066.jpg



Sign on opposite side of river provides indication of pipe location.

LM Start	2.93	Rating **	M	Issue No.	30
LM End	3.12	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.163317 °	38.162707 °
				-121.604813 °	-121.608262 °
DWR ID	DWR_NA0002_02_s_2012_30				
Comment Code					
UR : Urban					
Inspector Comment					

Photo 1 of 2 : SP_2016_NA0002_63_30_20160308_00030.jpg



Looking north at urban encroachments on landward slope and toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.93	Rating **	M	Issue No.	30 (cont)	
LM End	3.12	Issue Type +	En	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Encroachments			38.163317 °	38.162707 °	
				-121.604813 °	-121.608262 °	
DWR ID	DWR_NA0002_02_s_2012_30					
Comment Code						
UR : Urban						
Inspector Comment						

Photo 2 of 2 : SP_2016_NA0002_63_30_20160308_00031.jpg



Looking south at urban encroachments on landward slope.

LM Start	2.99	Rating **	M	Issue No.	128
LM End	2.99	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.163063 °	38.163063 °
				-121.605799 °	-121.605799 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12724 DS_ID:21886 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe should be abandoned properly. FIELD_STRUCT_DESC: *Abandoned* 6-inch pipe through levee 4.5 feet below crown. Originally included in the 1959 O&M manual. Pipe visible at foundation on WS shoulder. FS Date: 4/24/2013 10:00:00 AM					

Photo 1 of 2 : UCIP_SP_2016_12724_20643.jpg



Pipe visible at concrete foundation on WS shoulder.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	2.99	Rating **	M	Issue No.	128 (cont)
LM End	2.99	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.163063 °	38.163063 °
				-121.605799 °	-121.605799 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12724 DS_ID:21886 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe should be abandoned properly. FIELD_STRUCT_DESC: *Abandoned* 6-inch pipe through levee 4.5 feet below crown. Originally included in the 1959 O&M manual. Pipe visible at foundation on WS shoulder. FS Date: 4/24/2013 10:00:00 AM					

Photo 2 of 2 : UCIP_SP_2016_12724_20642.jpg



Foundation on WS shoulder.

LM Start	3.13	Rating **	M	Issue No.	104
LM End	3.13	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.162718 °	38.162718 °
				-121.608452 °	-121.608452 °
DWR ID	DWR_NA0002_02_f_2014_104				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Bamboo reestablishing on waterward slope.					

Photo 1 of 1 : SP_2016_NA0002_63_104_20160308_00070.jpg



Looking southwest at bamboo on waterward slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.17	Rating **	M	Issue No.	5
LM End	3.17	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.162638 °	38.162638 °
				-121.609068 °	-121.609068 °
DWR ID	DWR_NA0002_02_s _ 2012_5				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					

Photo 1 of 2 : SP_2016_NA0002_63_5_20160308_00003.jpg



Looking south at overhanging tree on waterward shoulder. (Fall 2014)

LM Start	3.17	Rating **	M	Issue No.	5 (cont)
LM End	3.17	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : SP_2016_NA0002_63_5_20160308_00004.jpg



Looking south at overhanging tree on waterside shoulder.

LM Start	3.20	Rating **	A/W	Issue No.	6
LM End	3.20	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.162643 °	38.162643 °
				-121.609616 °	-121.609616 °
DWR ID	DWR_NA0002_02_s _ 2012_6				
Comment Code					
T4 : Trim trees over roadway to at least 12 feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.22	Rating **	M	Issue No.	7
LM End	3.22	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.162609 °	38.162609 °
				-121.609979 °	-121.609979 °
DWR ID	DWR_NA0002_02_s_2012_7				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_63_7_20160308_00005.jpg



Looking south at overgrown landscaping on landward slope.

LM Start	3.29	Rating **	M	Issue No.	149
LM End	3.29	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.162430 °	38.162430 °
				-121.611248 °	-121.611248 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:15966 DS_ID:23135 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Need to determine disposition and use of pipe. FIELD_STRUCT_DESC: 4-inch cast iron pipe through the levee 8-feet below the crown. Pipe visible next to foundation on LS toe. FS Date: 4/24/2013					

Photo 1 of 2 : UCIP_SP_2016_15966_26949.jpg



Pipe visible next to foundation on LS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.29	Rating **	M	Issue No.	149 (cont)
LM End	3.29	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.162430 °	38.162430 °
				-121.611248 °	-121.611248 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:15966 DS_ID:23135 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Need to determine disposition and use of pipe. FIELD_STRUCT_DESC: 4-inch cast iron pipe through the levee 8-feet below the crown. Pipe visible next to foundation on LS toe. FS Date: 4/24/2013					

Photo 2 of 2 : UCIP_SP_2016_15966_26948.jpg



Pipe visible next to foundation on LS slope.

LM Start	3.31	Rating **	M	Issue No.	154
LM End	3.31	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.162378 °	38.162378 °
				-121.611656 °	-121.611656 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:41838					
DS_ID:23136					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Indicator Found					
UCIP Comments: Only USAA paint on pavement. Gasline should be permanently marked.					
FIELD_STRUCT_DESC: Gas line markers on pavement.					
FS Date: 4/24/2013					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.37	Rating **	M	Issue No.	129
LM End	3.37	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.162388 °	38.162388 °
				-121.612847 °	-121.612847 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:12745
DS_ID:21892
EP_NO: 11266
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: This pipe has been abandoned and should be abandoned properly. Pumphouse has collapsed.
FIELD_STRUCT_DESC: 6-inch pipe through levee 4.5 feet below crown. Pump in pump house on the water ward side (ABO No. 11266, 1975).
FS Date: 4/24/2013

LM Start	3.37	Rating **	M	Issue No.	129 (cont)
LM End	3.37	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_12745_20683.jpg



Pipe and wrecked pumphouse on WS toe.

Photo 2 of 2 : UCIP_SP_2016_12745_20682.jpg



Pipe visible on WS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.37	Rating **	U	Issue No.	34
LM End	3.56	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.162641 °	38.162828 °
				-121.612800 °	-121.616263 °
DWR ID	DWR_NA0002_02_s_2016_34				

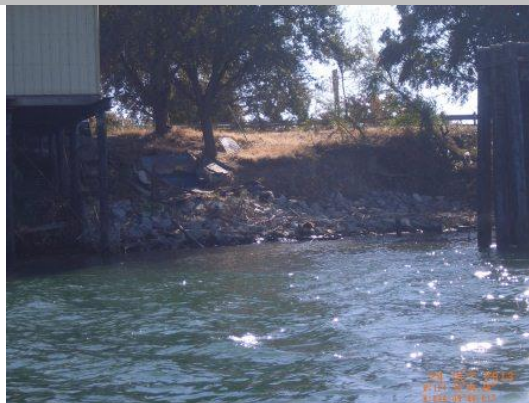
Comment Code

Inspector Comment

2009 - Fluvial erosion, into the levee slope, close to vertical bank with roadway on top. Pilings that were once at the bankline are now 30 ft out. 2010 - Very steep slope with slumps and overturned trees. 2011 - Upgraded to CRITICAL. Sections of vertical slope with highway on top. Heavy vegetation in front of most of the erosion pockets. Structures built into the levee on the upstream end. 2012 - Site continues to worsen. 2013 - Some rock added on the upstream end, but site remains critical. 2015: More rock has been placed in spots along the toe, but it is still insufficient. [2015 Site ID: SAC_17-2_L]

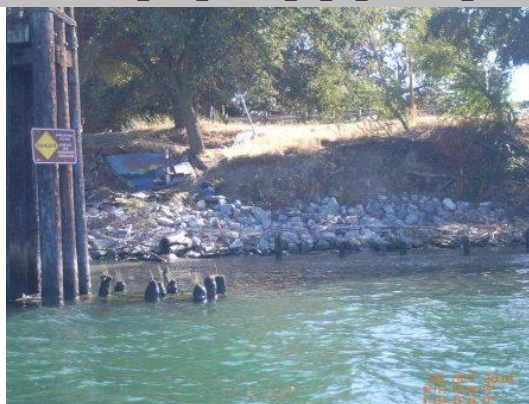
LM Start	3.37	Rating **	U	Issue No.	34 (cont)
LM End	3.56	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : SP_2016_NA0002_63_34_20160308_00032.jpg



USACE 2013 Photo #1

Photo 2 of 2 : SP_2016_NA0002_63_34_20160308_00033.jpg



USACE 2013 Photo #2

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.39	Rating **	U	Issue No.	100
LM End	3.42	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.162394 °	38.162432 °
				-121.613146 °	-121.613637 °
DWR ID	DWR_NA0002_02_s_2014_100				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Bamboo on waterward slope.					

Photo 1 of 1 : SP_2016_NA0002_63_100_20160323_00173.jpg



Looking southwest at vegetation (bamboo) on waterward slope.

LM Start	3.44	Rating **	M	Issue No.	130
LM End	3.44	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.162473 °	38.162473 °
				-121.613963 °	-121.613963 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12746 DS_ID:21893 EP_NO: 11275 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe abandoned and should be abandoned properly. Pipe open on both ends. FIELD_STRUCT_DESC: 8-inch pipe through levee 7.7 feet below crown. Pump in pump house on the water ward slope (ABO No. 11275, 1975). Originally included in the 1959 O&M manual. FS Date: 4/24/2013					

Photo 1 of 2 : UCIP_SP_2016_12746_20686.jpg



Pipe and pump visible on WS slope

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.44	Rating **	M	Issue No.	130 (cont)
LM End	3.44	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.162473 °	38.162473 °
				-121.613963 °	-121.613963 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12746 DS_ID:21893 EP_NO: 11275 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe abandoned and should be abandoned properly. Pipe open on both ends. FIELD_STRUCT_DESC: 8-inch pipe through levee 7.7 feet below crown. Pump in pump house on the water ward slope (ABO No. 11275, 1975). Originally included in the 1959 O&M manual. FS Date: 4/24/2013					

Photo 2 of 2 : UCIP_SP_2016_12746_20685.jpg



Pipe visible on LS slope near toe.

LM Start	3.47	Rating **	U	Issue No.	101
LM End	3.53	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.162492 °	38.162600 °
				-121.614521 °	-121.615667 °
DWR ID	DWR_NA0002_02_s_2014_101				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_63_101_20160308_00068.jpg



Looking at dense landscaping on landward slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.51	Rating **	U	Issue No.	22
LM End	3.58	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.162590 °	38.162728 °
				-121.615345 °	-121.616622 °
DWR ID	DWR_NA0002_02_s _ 2012_22				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					
Untrimmed trees on landward slope and toe.					

Photo 1 of 1 : SP_2016_NA0002_63_22_20160308_00021.jpg



Looking south at dense vegetation (trees) on landward slope and toe.

LM Start	3.62	Rating **	U	Issue No.	20
LM End	3.73	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.162959 °	38.163334 °
				-121.617323 °	-121.619312 °
DWR ID	DWR_NA0002_02_s _ 2016_20				
Comment Code					
Inspector Comment					
2008 - Overstepped levee section with pocket erosion. Plans for repair currently in the design phase. 2010 - Very steep slope with slumps, longitudinal cracking, and overturned trees. 2011 - Upgraded to CRITICAL. Sections of vertical slope with highway on top. Heavy vegetation in front of most of the erosion pockets. 2015: New rock placed on the levee slope for most of the downstream end, but bad spots still remain. [2015 Site ID: SAC_16-8_L]					

Photo 1 of 1 : SP_2016_NA0002_63_20_20160308_00019.jpg



USACE 2013 Photo #1

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.66	Rating **	U	Issue No.	153
LM End	3.66	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.162908 °	38.162908 °
				-121.618075 °	-121.618075 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:43103					
DS_ID:21894					
EP_NO: 13462					
Repair Type: Urgent					
Crossing Status: Found					
UCIP Comments: Possible sinkhole over pipe on WS shoulder. Good candidate for video inspection.					
FIELD_STRUCT_DESC: 16-inch pipe through levee 2.5 feet below crown (Permit No. 13462, 1982). Connected to an existing 42" concrete pipe sump. Replaces a pipe that was grouted in place.					
FS Date: 4/24/2013					

Photo 1 of 2 : UCIP_SP_2016_43103_20689.jpg



Pipe on WS slope.

LM Start	3.66	Rating **	U	Issue No.	153 (cont)
LM End	3.66	Issue Type +	En	Location *	WS

Photo 2 of 2 : UCIP_SP_2016_43103_20688.jpg



Possible sinkhole over pipe on WS shoulder.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.66	Rating **	M	Issue No.	55
LM End	3.66	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.162855 °	38.162855 °
				-121.618114 °	-121.618114 °
DWR ID	DWR_NA0002_02_f_2013_55				
Comment Code					
PI : Pipe					
Inspector Comment					
Landowner is repairing a pipe (Permit # 1615) without authorization from CVFPB. The excavation next to ramp is four to five feet deep and three to four feet wide. Landowner needs to ensure the hole is backfilled properly. Landowner backfilled trench without compaction results.					

LM Start	3.66	Rating **	M	Issue No.	55 (cont)
LM End	3.66	Issue Type +	En	Location *	LS

LM Start	3.66	Rating **	M	Issue No.	55 (cont)
LM End	3.66	Issue Type +	En	Location *	LS

Photo 1 of 5 : SP_2016_NA0002_63_55_20160308_00050.jpg



Looking southeast at backfilled trench next to ramp on landward slope. (Spring 2015).

Photo 2 of 5 : SP_2016_NA0002_63_55_20160308_00051.jpg



Looking east at backfilled trench next to ramp on landward slope. (Spring 2015).

Photo 3 of 5 : SP_2016_NA0002_63_55_20160308_00052.jpg



Looking east at excavation on landward 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	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.66	Rating **	M	Issue No.	55 (cont)
LM End	3.66	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.162855 °	38.162855 °
				-121.618114 °	-121.618114 °
DWR ID	DWR_NA0002_02_f_2013_55				
Comment Code					
PI : Pipe					
Inspector Comment					
Landowner is repairing a pipe (Permit # 1615) without authorization from CVFPB. The excavation next to ramp is four to five feet deep and three to four feet wide. Landowner needs to ensure the hole is backfilled properly. Landowner backfilled trench without compaction results.					

LM Start	3.66	Rating **	M	Issue No.	55 (cont)
LM End	3.66	Issue Type +	En	Location *	LS

Photo 4 of 5 : SP_2016_NA0002_63_55_20160308_00053.jpg



Looking south at excavation on landward slope. (Spring 2014)

Photo 5 of 5 : SP_2016_NA0002_63_55_20160308_00054.jpg



Looking southeast at excavation on landward slope next to ramp. (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	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.70	Rating **	M	Issue No.	131
LM End	3.70	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.163048 °	38.163048 °
				-121.618839 °	-121.618839 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12748					
DS_ID:21895					
EP_NO: 1615					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe abandoned and should be abandoned properly.					
FIELD_STRUCT_DESC: 8-inch pipe through levee 7.7 feet below crown. 6'X6' concrete distribution box on LS toe (Permit No. 1615, 1959). Included in the 1959 O&M manual.					
FS Date: 4/24/2013					

Photo 1 of 2 : UCIP_SP_2016_12748_20692.jpg



Concrete distribution box on LS toe.

LM Start	3.70	Rating **	M	Issue No.	131 (cont)
LM End	3.70	Issue Type +	En	Location *	LS

Photo 2 of 2 : UCIP_SP_2016_12748_20691.jpg



Rusted out pipe visible at WS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.73	Rating **	M	Issue No.	114
LM End	3.73	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.163163 °	38.163163 °
				-121.619370 °	-121.619370 °
DWR ID	DWR_NA0002_02_s _ 2016_114				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	3.92	Rating **	M	Issue No.	132
LM End	3.92	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.164063 °	38.164063 °
				-121.622650 °	-121.622650 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12752					
DS_ID:21898					
EP_NO: 11287					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Aging pipe with repair on WS slope. Good candidate for video inspection.					
FIELD_STRUCT_DESC: 5-inch pipe through levee 5.5 feet below crown. Pump in pump house on the landward side (ABO No. 11287, 1959). Shutoff valve in pumphouse on LS toe. Originally included in the 1959 O&M manual.					
FS Date: 4/24/2013					

Photo 1 of 2 : UCIP_SP_2016_12752_20699.jpg



Pipe and pumphouse on LS.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	3.92	Rating **	M	Issue No.	132 (cont)
LM End	3.92	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.164063 °	38.164063 °
				-121.622650 °	-121.622650 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12752					
DS_ID:21898					
EP_NO: 11287					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Aging pipe with repair on WS slope. Good candidate for video inspection.					
FIELD_STRUCT_DESC: 5-inch pipe through levee 5.5 feet below crown. Pump in pump house on the landward side (ABO No. 11287, 1959). Shutoff valve in pumphouse on LS toe. Originally included in the 1959 O&M manual.					
FS Date: 4/24/2013					

Photo 2 of 2 : UCIP_SP_2016_12752_20698.jpg



Pump and shutoff valve inside pumphouse on LS toe.

LM Start	3.96	Rating **	U	Issue No.	102
LM End	3.96	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.164246 °	38.164246 °
				-121.623272 °	-121.623272 °
DWR ID	DWR_NA0002_02_s_2014_102				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					
Untrimmed tree blocking landward slope and toe.					

Photo 1 of 1 : SP_2016_NA0002_63_102_20160308_00069.jpg



Looking south at dense trees on landward slope and toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	4.00	Rating **	A/W	Issue No.	31
LM End	4.00	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.164470 °	38.164470 °
				-121.624012 °	-121.624012 °
DWR ID	DWR_NA0002_02_s _ 2012_31				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	4.02	Rating **	U	Issue No.	59
LM End	4.13	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.164498 °	38.165167 °
				-121.624343 °	-121.626273 °
DWR ID	DWR_NA0002_02_s _ 2012_59				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_63_59_20160308_00056.jpg



Looking south at dense landscaping on landward slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

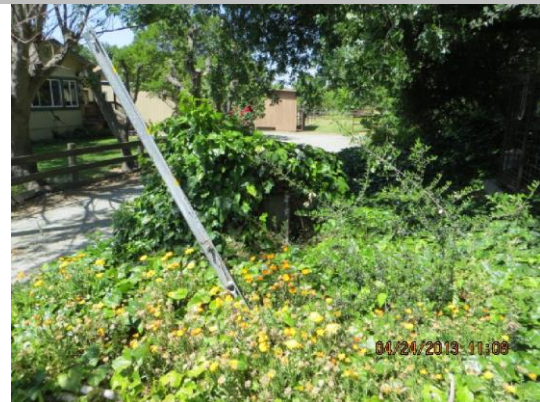
Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	4.05	Rating **	M	Issue No.	139
LM End	4.05	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.164727 °	38.164727 °
				-121.624869 °	-121.624869 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12764 DS_ID:21902 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: Need to determine disposition of this crossing. FIELD_STRUCT_DESC: 4x4-foot concrete tunnel through levee 5.0 feet below crown. Originally included in the 1959 O&M manual. FS Date: 4/24/2013					

No Photos

LM Start	4.11	Rating **	M	Issue No.	141
LM End	4.11	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.165016 °	38.165016 °
				-121.625834 °	-121.625834 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12768 DS_ID:21904 EP_NO: 787 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe may be abandoned and should be done so properly if not being used. Good candidate for video inspection. FIELD_STRUCT_DESC: 2 of 2: 14-inch steel irrigation pipe through levee 4.2 feet below crown. Pump on pile structure in stream (Permit No. 787, 1939). Included in the 1959 O&M manual. FS Date: 4/24/2013					

Photo 1 of 2 : UCIP_SP_2016_12768_20731.jpg



Concrete distribution box at LS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	4.11	Rating **	M	Issue No.	141 (cont)	
LM End	4.11	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.165016 °	38.165016 °	
				-121.625834 °	-121.625834 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:12768 DS_ID:21904 EP_NO: 787 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Pipe may be abandoned and should be done so properly if not being used. Good candidate for video inspection. FIELD_STRUCT_DESC: 2 of 2: 14-inch steel irrigation pipe through levee 4.2 feet below crown. Pump on pile structure in stream (Permit No. 787, 1939). Included in the 1959 O&M manual. FS Date: 4/24/2013						

Photo 2 of 2 : UCIP_SP_2016_12768_20730.jpg



Pipe on LS slope.

LM Start	4.46	Rating **	A/W	Issue No.	32
LM End	4.46	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.167135 °	38.167135 °
				-121.631662 °	-121.631662 °
DWR ID	DWR_NA0002_02_s_2012_32				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	4.48	Rating **	M	Issue No.	151
LM End	4.48	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.167174 °	38.167174 °
				-121.631927 °	-121.631927 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:16010					
DS_ID:21907					
EP_NO: 11274					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe abandoned and should be abandoned properly if not already done so.					
FIELD_STRUCT_DESC: 2 of 2: 10-inch pipe through levee 6.6 feet below crown. Pump in pump house on the landward slope (ABO No. 11274,1975). Originally included in the 1959 O&M manual.					
Pumphouse not visible 4/24/2013.					
FS Date: 4/24/2013					

LM Start	4.48	Rating **	M	Issue No.	151 (cont)
LM End	4.48	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_16010_27085.jpg



Possible portion of pumphouse visible off WS toe.

Photo 2 of 2 : UCIP_SP_2016_16010_27087.jpg



JP and meter on LS slope at location of abandoned pipe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	4.78	Rating **	M	Issue No.	142
LM End	4.78	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.168744 °	38.168744 °
				-121.637155 °	-121.637155 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12773					
DS_ID:21908					
EP_NO: 11285					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pit under pipe on WS shoulder - possible leak.					
Excavation of pipe on LS slope into levee prism.					
FIELD_STRUCT_DESC: 20-inch pipe sleeved through a 22-inch					
sleeved through a 24-inch pipe through levee 3-feet below the crown.					
Pump on landward side (ABO No. 11285, 1975). Small pump on LS					
shoulder and a 7'X9' concrete sump on the LS toe. Originally included					
in the 1959 O&M manual.					
FS Date: 5/2/2013					

LM Start	4.78	Rating **	M	Issue No.	142 (cont)
LM End	4.78	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_12773_20740.jpg



Small pump on LS shoulder with concrete distribution box on LS toe.

Photo 2 of 2 : UCIP_SP_2016_12773_20739.jpg



20-inch pipe sleeved through 22-inch pipe sleeved through a 24-inch steel pipe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	4.83	Rating **	M	Issue No.	143
LM End	4.83	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.168887 °	38.168887 °
				-121.637957 °	-121.637957 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12774					
DS_ID:21909					
EP_NO: 724					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe open on waterside at fallen down pumphouse.					
Pipe abandoned. Service pole on LS slope down on ground near					
broken standpipe. Pipe needs to be properly abandoned.					
FIELD_STRUCT_DESC: 10-inch pipe through levee 3.8 feet below					
crown. Pump in pumphouse on the water ward slope. Service pole on					
the landward slope (Permit No. 724, 1937). Replaces a 10-inch pipe					
approx. same location. 32-inch concrete standpipe on LS toe. 1.5-inch					
electrical conduit runs parallel to 10-inch pipe. Included in the 1959					
O&M manual.					
FS Date: 5/2/2013					

LM Start	4.83	Rating **	M	Issue No.	143 (cont)
LM End	4.83	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_12774_20745.jpg



Broken down pumphouse on WS slope.

Photo 2 of 2 : UCIP_SP_2016_12774_20744.jpg



deformed and crushed pipe with 1.5-inch electrical conduit on WS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

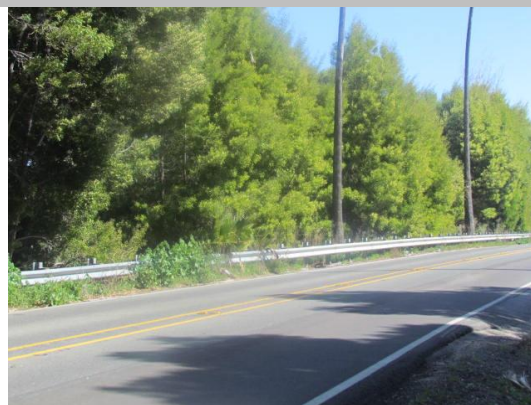
Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	5.01	Rating **	M	Issue No.	95
LM End	5.01	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.169770 °	38.169770 °
				-121.641032 °	-121.641032 °
DWR ID	DWR_NA0002_02_f_2015_95				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	5.31	Rating **	U	Issue No.	9
LM End	5.42	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.171878 °	38.171800 °
				-121.645552 °	-121.647447 °
DWR ID	DWR_NA0002_02_s_2012_9				
Comment Code					
T2 : Thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					

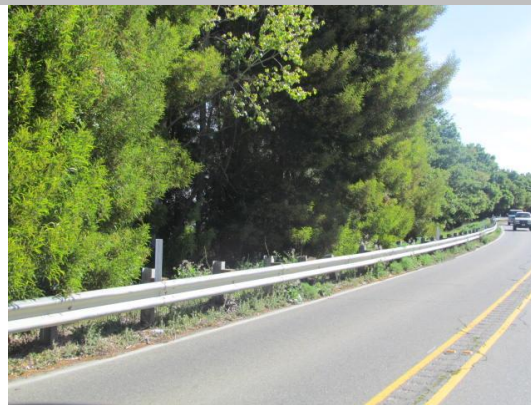
Photo 1 of 3 : SP_2016_NA0002_63_9_20160308_00008.jpg



Looking southeast at dense trees on landside slope and toe.

LM Start	5.31	Rating **	U	Issue No.	9 (cont)
LM End	5.42	Issue Type +	Ma	Location *	WS

Photo 2 of 3 : SP_2016_NA0002_63_9_20160308_00009.jpg



Looking northwest at dense trees on waterward shoulder and slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	5.31	Rating **	U	Issue No.	9 (cont)	
LM End	5.42	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Trim / Thin Trees			38.171878 °		38.171800 °
				-121.645552 °		-121.647447 °
DWR ID	DWR_NA0002_02_s_2012_9					
Comment Code						
T2 : Thin trees to allow visibility of the ground and room to flood fight.						
Inspector Comment						

Photo 3 of 3 : SP_2016_NA0002_63_9_20160308_00010.jpg



Looking west at dense trees on waterward should and slope.

LM Start	5.39	Rating **	M	Issue No.	56
LM End	5.39	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.171850 °	38.171850 °
				-121.647000 °	-121.647000 °
DWR ID	DWR_NA0002_02_f_2013_56				
Comment Code					
FE : Fence					
Inspector Comment					
Fencing should be removed.					

Photo 1 of 1 : SP_2016_NA0002_63_56_20160308_00055.jpg



Looking at unauthorized fence on landward slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	5.41	Rating **	M	Issue No.	144
LM End	5.41	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.171824 °	38.171824 °
				-121.647265 °	-121.647265 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12776					
DS_ID:21910					
EP_NO: 7089A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Hole at LS toe over pipe possible sign of leakage.					
FIELD_STRUCT_DESC: 7-inch pipe through levee 13.0 feet below crown. Pump in pump house on the landward side. 1.5-inch galvanized steel electrical conduit at same location. 4'X6' concrete distribution box off LS toe next to pumphouse. Originally included in the 1959 O&M manual.					
FS Date: 5/2/2013					

LM Start	5.41	Rating **	M	Issue No.	144 (cont)
LM End	5.41	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_12776_20754.jpg



Pipe and electrical conduit on WS slope.

Photo 2 of 2 : UCIP_SP_2016_12776_20753.jpg



Pump on pier at WS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	5.58	Rating **	A/W	Issue No.	10
LM End	5.58	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.172019 °	38.172019 °
				-121.650327 °	-121.650327 °
DWR ID	DWR_NA0002_02_s _ 2012_10				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	5.65	Rating **	M	Issue No.	11
LM End	5.69	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.172308 °	38.172497 °
				-121.651552 °	-121.652243 °
DWR ID	DWR_NA0002_02_s _ 2012_11				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Bamboo on waterward slope.					

Photo 1 of 1 : SP_2016_NA0002_63_11_20160308_00011.jpg



LM Start	5.66	Rating **	A/W	Issue No.	36
LM End	5.69	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.172388 °	38.172512 °
				-121.651892 °	-121.652322 °
DWR ID	DWR_NA0002_02_s _ 2012_36				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	5.68	Rating **	M	Issue No.	51
LM End	5.68	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.172442 °	38.172442 °
				-121.652182 °	-121.652182 °
DWR ID	DWR_NA0002_02_s _ 2013_51				
Comment Code					
BU : Building					
Inspector Comment					
Tool shed and animal pen at landside toe.					

Photo 1 of 1 : SP_2016_NA0002_63_51_20160308_00048.jpg



Looking east tool shed and animal corral on landward slope and toe.

LM Start	5.68	Rating **	A/W	Issue No.	52
LM End	5.68	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.172457 °	38.172457 °
				-121.652188 °	-121.652188 °
DWR ID	DWR_NA0002_02_s _ 2013_52				
Comment Code					
V6 : Landscaping					
Inspector Comment					
Remove cactus from landside slope.					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	5.77	Rating **	M	Issue No.	145
LM End	5.77	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.172940 °	38.172940 °
				-121.653700 °	-121.653700 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12778					
DS_ID:21912					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe abandoned. Erosion on WS slope at location where pipe should be.					
FIELD_STRUCT_DESC: 12-inch pipe through levee 13.0 feet below crown. Pump and gate valve in pumphouse at landside toe. 1.5-inch electrical conduit along pipe at same location. 42-inch concrete stand pipe at LS toe. Concrete standpipe at landside toe.					
FS Date: 5/2/2013					

LM Start	5.77	Rating **	M	Issue No.	145 (cont)
LM End	5.77	Issue Type +	En	Location *	LS

Photo 1 of 2 : UCIP_SP_2016_12778_20762.jpg



Conduit at WS toe.

Photo 2 of 2 : UCIP_SP_2016_12778_20761.jpg



Erosion along pipe alignment at WS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	5.80	Rating **	M	Issue No.	13
LM End	6.13	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.173130 °	38.174559 °
				-121.654285 °	-121.659867 °
DWR ID	DWR_NA0002_02_s_2012_13				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_63_13_20160308_00014.jpg



Looking southeast at compliant vegetation on landside slope.

LM Start	6.12	Rating **	M	Issue No.	103
LM End	6.12	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.174670 °	38.174670 °
				-121.659592 °	-121.659592 °
DWR ID	DWR_NA0002_02_f_2015_103				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	6.20	Rating **	M	Issue No.	146
LM End	6.20	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.174308 °	38.174308 °
				-121.661105 °	-121.661105 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12779 DS_ID:21913 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: Unable to locate due to excessive vegetation. FIELD_STRUCT_DESC: *Abandoned* 8-inch pipe through levee at low elevation. FS Date: 5/2/2013					

No Photos

LM Start	6.23	Rating **	M	Issue No.	110	
LM End	6.23	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Trim / Thin Trees			38.174182 °		38.174182 °
				-121.661633 °		-121.661633 °
DWR ID	DWR_NA0002_02_s_2015_110					
Comment Code						
T1 : Trim trees to at least five feet above ground level.						
Inspector Comment						

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	6.27	Rating **	U	Issue No.	50
LM End	6.27	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.173922 °	38.173922 °
				-121.662272 °	-121.662272 °
DWR ID	DWR_NA0002_02_s_2013_50				
Comment Code					
V6 : Landscaping					
Inspector Comment					

Photo 1 of 2 : SP_2016_NA0002_63_50_20160308_00046.jpg



Looking south at dense landscaping on landward slope.

LM Start	6.27	Rating **	U	Issue No.	50 (cont)
LM End	6.27	Issue Type +	En	Location *	LS

Photo 2 of 2 : SP_2016_NA0002_63_50_20160308_00047.jpg



Looking north at dense landscaping on landward slope.

LM Start	6.36	Rating **	M	Issue No.	14
LM End	6.36	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.173406°	38.173406°
				-121.663815°	-121.663815°
DWR ID	DWR_NA0002_02_s_2012_14				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	6.95	Rating **	A/W	Issue No.	111
LM End	6.95	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.167003 °	38.167003 °
				-121.670228 °	-121.670228 °
DWR ID	DWR_NA0002_02_s _ 2015_111				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Downed tree limbs on landward slope.					

No Photos

LM Start	6.98	Rating **	M	Issue No.	23
LM End	7.04	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.166583 °	38.165794 °
				-121.670684 °	-121.671014 °
DWR ID	DWR_NA0002_02_s _ 2016_23				
Comment Code					
Inspector Comment					
2011 - Large section of bank slumped off. 2015: No observed changes. [2015 Site ID: SAC_13-6_L]					

Photo 1 of 1 : SP_2016_NA0002_63_23_20160308_00022.jpg



USACE 2013 Photo #1

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	7.02	Rating **	U	Issue No.	136
LM End	7.02	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.165949 °	38.165949 °
				-121.670638 °	-121.670638 °
DWR ID					

Comment Code

Inspector Comment

FS_ID:16011
DS_ID:21916
EP_NO: N/A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: Pipe open on WS.
FIELD_STRUCT_DESC: *Abandoned* 8-inch pipe through levee 8.7 feet below crown. Pipe measures 8-inch Inside diameter and 10-inch outside diameter. 5'X5' Concrete distribution box on landside toe. Originally included in the 1959 O&M manual.
FS Date: 5/2/2013

LM Start	7.02	Rating **	U	Issue No.	136 (cont)
LM End	7.02	Issue Type +	En	Location *	WS

Photo 1 of 2 : UCIP_SP_2016_16011_27090.jpg



Pipe open on WS slope.

Photo 2 of 2 : UCIP_SP_2016_16011_27091.jpg



5X5 concrete distribution box at LS toe

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	7.13	Rating **	M	Issue No.	112
LM End	7.13	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.164465 °	38.164465 °
				-121.671292 °	-121.671292 °
DWR ID	DWR_NA0002_02_f_2015_112				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

LM Start	7.45	Rating **	M	Issue No.	147
LM End	7.45	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.160387 °	38.160387 °
				-121.673972 °	-121.673972 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12814 DS_ID:21918 EP_NO: 11293 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Erosion or sinkhole on WS shoulder. Does not appear to be an immediate threat. FIELD_STRUCT_DESC: 2 of 2: 16-inch pipe through levee 7.1 feet below crown. Pump on the landward slope. Service pole on the landward slope. 72-inch Concrete standpipe at toe of landward slope (ABO No. 11293, 1975). Originally included in the 1959 O&M manual. FS Date: 5/2/2013					

Photo 1 of 2 : UCIP_SP_2016_12814_20821.jpg



Erosion/sinkhole over pipe on WS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	7.45	Rating **	M	Issue No.	147 (cont)
LM End	7.45	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.160387 °	38.160387 °
				-121.673972 °	-121.673972 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12814 DS_ID:21918 EP_NO: 11293 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Erosion or sinkhole on WS shoulder. Does not appear to be an immediate threat. FIELD_STRUCT_DESC: 2 of 2: 16-inch pipe through levee 7.1 feet below crown. Pump on the landward slope. Service pole on the landward slope. 72-inch Concrete standpipe at toe of landward slope (ABO No. 11293, 1975). Originally included in the 1959 O&M manual. FS Date: 5/2/2013					

Photo 2 of 2 : UCIP_SP_2016_12814_20820.jpg



Pipe on WS slope.

LM Start	7.49	Rating **	M	Issue No.	148
LM End	7.49	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.159940 °	38.159940 °
				-121.674430 °	-121.674430 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12817					
DS_ID:21920					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Pipe should be abandoned properly.					
FIELD_STRUCT_DESC: 3-inch pipe through levee 7.7 feet below crown. Inactive service pole on the landward slope.					
FS Date: 5/2/2013					

Photo 1 of 2 : UCIP_SP_2016_12817_20825.jpg



3.5-inch galvanized iron pipe on LS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	7.49	Rating **	M	Issue No.	148 (cont)	
LM End	7.49	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.159940 °	38.159940 °	
				-121.674430 °	-121.674430 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:12817						
DS_ID:21920						
EP_NO: N/A						
Repair Type: Non-Urgent						
Crossing Status: Found						
UCIP Comments: Pipe should be abandoned properly.						
FIELD_STRUCT_DESC: 3-inch pipe through levee 7.7 feet below crown. Inactive service pole on the landward slope.						
FS Date: 5/2/2013						

Photo 2 of 2 : UCIP_SP_2016_12817_20824.jpg



3.5-inch galvanized iron pipe on LS slope.

LM Start	7.57	Rating **	M	Issue No.	155
LM End	7.57	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.158990 °	38.158990 °
				-121.675374 °	-121.675374 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:40795 DS_ID:21922 EP_NO: 1663 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Hole over pipe on WS berm that may indicate a leak or other problem. Pipe should be inspected and hole over pipe backfilled. FIELD_STRUCT_DESC: 14-inch pipe through levee 4.4 feet below crown. A 12-inch pipe is sleeved through the 14-inch and then a 6-inch pipe is sleeved through the 12-inch. Siphon breaker in 24-inch CMP standpipe on LS shoulder. 48-inch diameter concrete standpipe on LS toe. (Permit No. 1663,15429 1959). FS Date: 5/2/2013					

Photo 1 of 2 : UCIP_SP_2016_40795_20835.jpg



siphon breaker in 24-inch CMP riser on LS slope and filters at LS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	7.57	Rating **	M	Issue No.	155 (cont)	
LM End	7.57	Issue Type +	En	Location *	LS	
Category	Supplemental			GPS Latitude/Longitude		
				Start		End
Item	DWR UCIP Field Study			38.158990 °		38.158990 °
				-121.675374 °		-121.675374 °
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:40795 DS_ID:21922 EP_NO: 1663 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Hole over pipe on WS berm that may indicate a leak or other problem. Pipe should be inspected and hole over pipe backfilled. FIELD_STRUCT_DESC: 14-inch pipe through levee 4.4 feet below crown. A 12-inch pipe is sleeved through the 14-inch and then a 6-inch pipe is sleeved through the 12-inch. Siphon breaker in 24-inch CMP standpipe on LS shoulder. 48-inch diameter concrete standpipe on LS toe. (Permit No. 1663,15429 1959). FS Date: 5/2/2013						

Photo 2 of 2 : UCIP_SP_2016_40795_20834.jpg



Filter on LS to.e

LM Start	7.71	Rating **	M	Issue No.	105
LM End	7.71	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.157841 °	38.157841 °
				-121.677510 °	-121.677510 °
DWR ID	DWR_NA0002_02_f_2014_105				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Tree limbs on waterward shoulder.					

Photo 1 of 1 : SP_2016_NA0002_63_105_20160308_00071.jpg



Looking southwest at tree limbs on waterward shoulder.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	7.80	Rating **	M	Issue No.	106
LM End	7.80	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.157007 °	38.157007 °
				-121.678695 °	-121.678695 °
DWR ID	DWR_NA0002_02_f_2014_106				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Broken limbs were removed.					

Photo 1 of 1 : SP_2016_NA0002_63_106_20160308_00072.jpg



Looking southeast at broken tree limb on landward shoulder.

LM Start	7.93	Rating **	M	Issue No.	140
LM End	7.93	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.155494 °	38.155494 °
				-121.679988 °	-121.679988 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12869 DS_ID:21925 EP_NO: 2795 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Annular space between PVC pipe and 12-inch steel pipe has not been sealed. FIELD_STRUCT_DESC: 20-inch pipe through the levee 3 feet below the crown. 8-inch PVC pipe sleeved through a 12-inch pipe that is sleeved through the 20-inch. Annular space grouted between two metal pipes. Pump and butterfly valve in pumphouse on the water ward slope. 36-inch concrete standpipe and filters on LS toe.(Permit No. 2795,1959). FS Date: 5/3/2013					

Photo 1 of 2 : UCIP_SP_2016_12869_20933.jpg



PVC pipe, filters, and concrete standpipe on LS.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	7.93	Rating **	M	Issue No.	140 (cont)
LM End	7.93	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.155494 °	38.155494 °
				-121.679988 °	-121.679988 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12869 DS_ID:21925 EP_NO: 2795 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Annular space between PVC pipe and 12-inch steel pipe has not been sealed. FIELD_STRUCT_DESC: 20-inch pipe through the levee 3 feet below the crown. 8-inch PVC pipe sleeved through a 12-inch pipe that is sleeved through the 20-inch. Annular space grouted between two metal pipes. Pump and butterfly valve in pumphouse on the water ward slope. 36-inch concrete standpipe and filters on LS toe.(Permit No. 2795,1959). FS Date: 5/3/2013					

Photo 2 of 2 : UCIP_SP_2016_12869_20932.jpg



Pumphouse and pipe on WS slope.

LM Start	8.15	Rating **	M	Issue No.	137
LM End	8.15	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.152550 °	38.152550 °
				-121.681560 °	-121.681560 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:16143					
DS_ID:21926					
EP_NO: 8661					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Dip in crown over alignment of pipe. Good candidate for video inspection.					
FIELD_STRUCT_DESC: 8-inch pipe through levee 3.7 feet below crown. Pump in pump house on the landward slope. Service pole and 30-inch concrete standpipe at the landward toe (ABO No. 8661, 1972). Originally included in the 1959 O&M.					
FS Date: 5/3/2013					

Photo 1 of 2 : UCIP_SP_2016_16143_27242.jpg



Pump and butterfly valve in pumphouse on LS toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	8.15	Rating **	M	Issue No.	137 (cont)
LM End	8.15	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.152550 °	38.152550 °
				-121.681560 °	-121.681560 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:16143					
DS_ID:21926					
EP_NO: 8661					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Dip in crown over alignment of pipe. Good candidate for video inspection.					
FIELD_STRUCT_DESC: 8-inch pipe through levee 3.7 feet below crown. Pump in pump house on the landward slope. Service pole and 30-inch concrete standpipe at the landward toe (ABO No. 8661, 1972). Originally included in the 1959 O&M.					
FS Date: 5/3/2013					

Photo 2 of 2 : UCIP_SP_2016_16143_27241.jpg



Pumphouse with concrete standpipe in background on LS toe.

LM Start	8.20	Rating **	U	Issue No.	17
LM End	8.42	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.151867 °	38.148711 °
				-121.682201 °	-121.682790 °
DWR ID	DWR_NA0002_02_s_2016_17				
Comment Code					
Inspector Comment					
2010 - Small inlet area behind a man-built spit. Bank is slumping and could possibly be fixed with maintenance. 2011 - Site continues to worsen. 2015: Upgraded to Critical [2015 Site ID: SAC_12-1_L]					

Photo 1 of 1 : SP_2016_NA0002_63_17_20160308_00017.jpg



USACE 2013 Photo #1

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	8.32	Rating **	M	Issue No.	44
LM End	8.68	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.150112 °	38.144977 °
				-121.682305 °	-121.683345 °
DWR ID	DWR_NA0002_02_s_2012_44				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : SP_2016_NA0002_63_44_20160308_00040.jpg



Looking southeast at trees on landside shoulder and slope.

LM Start	8.40	Rating **	A/W	Issue No.	57
LM End	8.40	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.149000 °	38.149000 °
				-121.682479 °	-121.682479 °
DWR ID	DWR_NA0002_02_f_2013_57				
Comment Code					
TR : Tree or limb					
Inspector Comment					
Tree limbs on waterward slope.					

No Photos

LM Start	8.44	Rating **	A/W	Issue No.	33
LM End	8.44	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.148323 °	38.148323 °
				-121.682548 °	-121.682548 °
DWR ID	DWR_NA0002_02_s_2012_33				
Comment Code					
TR : Tree or limb					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	8.55	Rating **	M	Issue No.	133
LM End	8.55	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.146784 °	38.146784 °
				-121.682780 °	-121.682780 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12886 DS_ID:21929 EP_NO: 842 Repair Type: Non-Urgent Crossing Status: Indicator Found UCIP Comments: Need to determine disposition of pipe. FIELD_STRUCT_DESC: 12-inch gas pipe through levee 3-feet below the crown Gasline marker/vent on WS shoulder. (Permit No. 842, 1940). FS Date: 5/3/2013					

LM Start	8.55	Rating **	M	Issue No.	133 (cont)
LM End	8.55	Issue Type +	En	Location *	WS

Photo 1 of 2 : UCIP_SP_2016_12886_20946.jpg



Gasline marker and vent to right of JP.

Photo 2 of 2 : UCIP_SP_2016_12886_20945.jpg



Gasline marker and vent to right of JP.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	8.65	Rating **	U	Issue No.	48
LM End	8.86	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.145368 °	38.142430 °
				-121.683072 °	-121.683978 °
DWR ID	DWR_NA0002_02_s _ 2013_48				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

LM Start	8.65	Rating **	U	Issue No.	48 (cont)
LM End	8.86	Issue Type +	Ma	Location *	LS

Photo 1 of 2 : SP_2016_NA0002_63_48_20160308_00044.jpg



Looking south at trees on landward slope.

Photo 2 of 2 : SP_2016_NA0002_63_48_20160308_00045.jpg



Looking north at dense trees on landward slope and toe.

LM Start	8.90	Rating **	A/W	Issue No.	47
LM End	8.90	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.141928 °	38.141928 °
				-121.684308 °	-121.684308 °
DWR ID	DWR_NA0002_02_s _ 2013_47				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	8.96	Rating **	U	Issue No.	19
LM End	9.18	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.141399°	38.138158°
				-121.685346°	-121.686531°
DWR ID	DWR_NA0002_02_s _ 2016_19				
Comment Code					
Inspector Comment					
2008 - Erosion causing vertical bank at the highway on top of levee. The whole bank along the highway should be repaired. 2009 - Minimal new erosion. 2011 - Bank continues to slowly erode. 2012 - Upgrade to critical, new erosion since lat year and steeper slopes in sections. 2015: Road foundation and cables exposed. Extremely large tree with exposed roots looks likely to fail and take out a significant portion of the levee. [2015 Site ID: SAC_11-2_L]					

Photo 1 of 1 : SP_2016_NA0002_63_19_20160308_00018.jpg



USACE 2013 Photo #1

LM Start	9.02	Rating **	M	Issue No.	134
LM End	9.02	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.140391 °	38.140391 °
				-121.685266 °	-121.685266 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12927 DS_ID:21941 EP_NO: 16014 Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: Need to determine disposition of pipe. FIELD_STRUCT_DESC: 1 of 2: 12-inch pipe through levee 2.0 feet below crown. Pump on waterward side. Concrete riser pipe on landward side (Permit No. 16014, 1995). FS Date: 5/3/2013					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	9.02	Rating **	M	Issue No.	135
LM End	9.02	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.140391 °	38.140391 °
				-121.685266 °	-121.685266 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:12928 DS_ID:21963 EP_NO: 16014 Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: Need to determine disposition of utility. FIELD_STRUCT_DESC: 2 of 2: Electrical conduit through levee 2.0 feet below crown. Pump on waterward side. Concrete riser pipe on landward side (Permit No. 16014, 1995). FS Date: 5/3/2013					

No Photos

LM Start	9.15	Rating **	M	Issue No.	115
LM End	9.15	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.138510 °	38.138510 °
				-121.686124 °	-121.686124 °
DWR ID	DWR_NA0002_02_s_2016_115				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Erosion on waterward shoulder along highway appears to be foot erosion. But should be monitored.					

Photo 1 of 3 : SP_2016_NA0002_63_115_20160323_00175.jpg



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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	9.15	Rating **	M	Issue No.	115 (cont)	
LM End	9.15	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			38.138510 °		38.138510 °
				-121.686124 °		-121.686124 °
DWR ID	DWR_NA0002_02_s _ 2016_115					
Comment Code						
E1 : Note and monitor erosion site.						
Inspector Comment						
Erosion on waterward shoulder along highway appears to be foot erosion. But should be monitored.						

Photo 2 of 3 : SP_2016_NA0002_63_115_20160323_00174.jpg



Looking north at erosion on waterward shoulder.

LM Start	9.15	Rating **	M	Issue No.	115 (cont)
LM End	9.15	Issue Type +	Ma	Location *	WS

Photo 3 of 3 : SP_2016_NA0002_63_115_20160323_00176.jpg



LM Start	9.32	Rating **	U	Issue No.	116
LM End	9.35	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.136024 °	38.135699 °
				-121.686206 °	-121.686170 °
DWR ID	DWR_NA0002_02_s _ 2016_116				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Dense vegetation on landward slope and toe.					

Photo 1 of 2 : SP_2016_NA0002_63_116_20160323_00177.jpg



Looking south at dense vegetation on landward slope and toe.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	9.32	Rating **	U	Issue No.	116 (cont)	
LM End	9.35	Issue Type +	Ma	Location *	LS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			38.136024 °		38.135699 °
				-121.686206 °		-121.686170 °
DWR ID	DWR_NA0002_02_s _ 2016_116					
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment						
Dense vegetation on landward slope and toe.						

Photo 2 of 2 : SP_2016_NA0002_63_116_20160323_00178.jpg



LM Start	9.36	Rating **	M	Issue No.	152
LM End	9.36	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.135584 °	38.135584 °
				-121.686108 °	-121.686108 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:40528 DS_ID:21931 EP_NO: 16011 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: Annular space between pipes should be grouted. IF abandoned, these pipes should be abandoned properly. FIELD_STRUCT_DESC: 18-inch corrugated metal conduit pipe through the levee 4.5 feet below the crown. Inactive 12-inch pipe sleeved through 18-inch. Both ends open. Siphon breaker and air valve in 24-inch CMP riser on LS shoulder. 9'X5' concrete box with slide gate off LS toe. Originally included in the 1959 O&M manual. FS Date: 5/3/2013					

Photo 1 of 2 : UCIP_SP_2016_40528_21002.jpg



Pipe on WS slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	9.36	Rating **	M	Issue No.	152 (cont)
LM End	9.36	Issue Type +	En	Location *	LS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.135584 °	38.135584 °
				-121.686108 °	-121.686108 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:40528					
DS_ID:21931					
EP_NO: 16011					
Repair Type: Non-Urgent					
Crossing Status: Found					
UCIP Comments: Annular space between pipes should be grouted. IF abandoned, these pipes should be abandoned properly.					
FIELD_STRUCT_DESC: 18-inch corrugated metal conduit pipe through the levee 4.5 feet below the crown. Inactive 12-inch pipe sleeved through 18-inch. Both ends open. Siphon breaker and air valve in 24-inch CMP riser on LS shoulder. 9'X5' concrete box with slide gate off LS toe. Originally included in the 1959 O&M manual.					
FS Date: 5/3/2013					

Photo 2 of 2 : UCIP_SP_2016_40528_21001.jpg



18-inch CMP with 12-inch irrigation pipe sleeved through it.

LM Start	9.39	Rating **	A/W	Issue No.	15
LM End	9.39	Issue Type +	En	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.135106 °	38.135106 °
				-121.686065 °	-121.686065 °
DWR ID	DWR_NA0002_02_s_ 2012_15				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	9.50	Rating **	M	Issue No.	138
LM End	9.50	Issue Type +	En	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.133512 °	38.133512 °
				-121.685948 °	-121.685948 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:16146					
DS_ID:23142					
EP_NO: N/A					
Repair Type: Non-Urgent					
Crossing Status: Indicator Found					
UCIP Comments: Need to determine Permit No. for this crossing.					
FIELD_STRUCT_DESC: Gasline markers on LS toe and WS shoulder.					
FS Date: 5/3/2013					

Photo 1 of 2 : UCIP_SP_2016_16146_27251.jpg



Gasline Marker on WS shoulder

Photo 2 of 2 : UCIP_SP_2016_16146_27250.jpg



Gasline Marker on LS shoulder

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	9.60	Rating **	U	Issue No.	16
LM End	9.71	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.132095 °	38.130537 °
				-121.686243 °	-121.686737 °
DWR ID	DWR_NA0002_02_s _ 2012_16				
Comment Code					
T3 : Trim and thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					
Untrimmed trees within twenty foot zone on waterward slope.					

LM Start	9.60	Rating **	U	Issue No.	16 (cont)
LM End	9.71	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : SP_2016_NA0002_63_16_20160308_00015.jpg



Looking south at dense vegetation (trees) on waterward slope.

Photo 2 of 2 : SP_2016_NA0002_63_16_20160308_00016.jpg



Looking north at dense vegetation (trees) on waterward slope.

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

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	9.78	Rating **	M	Issue No.	21
LM End	9.93	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			38.129722 °	38.127672 °
				-121.687468 °	-121.688646 °
DWR ID	DWR_NA0002_02_s _ 2016_21				
Comment Code					
Inspector Comment					
2004 - Wave wash pockets approximately 100 ft long with new full bank rock between the pockets. 2005 - Spot repairs, but toe is still eroding in several places. 2006 - Low vertical bank along roadway. 2007 - A PL 84-99 repair was constructed, it cover the majority of the site with the exception of the upstream 150 to 200 ft and the downstream 250 ft, therefore it is being kept in the inventory. 2009 - Minimal new erosion. 2010 - Outboard berm looks good, but the banks are still very steep. 2011 - While the outboard berm is protecting against wave wash, bank still has slumping issues. 2015: No observed changes. [2015 Site ID: SAC_10-8_L]					

Photo 1 of 1 : SP_2016_NA0002_63_21_20160308_00020.jpg



USACE 2013 Photo #1

LM Start	10.17	Rating **	U	Issue No.	117
LM End	10.19	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.124372 °	38.124097 °
				-121.690045 °	-121.690186 °
DWR ID	DWR_NA0002_02_s _ 2016_117				
Comment Code					
V2 : Remove the wild growth other than native grasses from the levee slopes.					
Inspector Comment					
Dense vegetation (vines) on waterward slope.					

Photo 1 of 2 : SP_2016_NA0002_63_117_20160323_00179.jpg



Looking west at dense vegetation (vines) on waterward slope.

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

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2016

Brannan Andrus Levee Maintenance District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Sacramento River	Left	11.54	03/21/2016 03/22/2016	Richard Willoughby

LM Start	10.17	Rating **	U	Issue No.	117 (cont)	
LM End	10.19	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Vegetation			38.124372 °		38.124097 °
				-121.690045 °		-121.690186 °
DWR ID	DWR_NA0002_02_s_2016_117					
Comment Code						
V2 : Remove the wild growth other than native grasses from the levee slopes.						
Inspector Comment						
Dense vegetation (vines) on waterward slope.						

Photo 2 of 2 : SP_2016_NA0002_63_117_20160323_00180.jpg



LM Start	10.26	Rating **	U	Issue No.	107
LM End	10.48	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			38.123119 °	38.120256 °
				-121.690488 °	-121.692298 °
DWR ID	DWR_NA0002_02_f_2014_107				
Comment Code					
T3 : Trim and thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					
Bamboo on waterward slope.					

Photo 1 of 1 : SP_2016_NA0002_63_107_20160308_00073.jpg



Looking south at dense vegetation on waterward slope.

LM Start	10.28	Rating **	M	Issue No.	113
LM End	10.28	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.122904 °	38.122904 °
				-121.690819 °	-121.690819 °
DWR ID	DWR_NA0002_02_f_2015_113				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Bank erosion on waterward shoulder greater than 3" depth but less than 3' in length.					

Photo 1 of 1 : SP_2016_NA0002_63_113_20160308_00074.jpg



Looking at erosion on waterward shoulder.

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