

# Appendix G: Inspection Category Rating Descriptions

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Animal Control	<p><b>A1</b> Exterminate rodents and backfill and compact or grout burrows.</p> <p>A Rodent holes have been backfilled in a manner that adequately addresses the void created in the levee. A continuous animal burrow control program is in place that includes elimination of active burrowing and the filling of existing burrows. Less than 5 holes (holes that penetrate the levee prism more than 6") in any 25' length of levee, and less than 2 cubic feet of material observed beside any hole. All holes are less than 6" in diameter.</p> <p>M Either more than 5 holes were observed in a 25' length of levee or at least one hole greater than 6" in diameter was observed. No rodent activity was observed on opposing slope and holes penetrate the levee prism more than 6".</p> <p>U More than 2 cubic feet of material was observed beside at least one hole. Either 5 or more holes were observed in a 25' length of levee or a hole 6" in diameter or more was observed with rodent activity on the opposing slope. Holes penetrate the levee prism more than 6".</p> <p>A/W The animal burrow control program has produced results per the standard, but the area should be monitored and the control program continued to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Animal Control	<p><b>A2</b> Repair the levee slope damaged by livestock and prevent large animal access.</p> <p>A Rodent holes have been backfilled in a manner that adequately addresses the void created in the levee. A continuous animal burrow control program is in place that includes elimination of active burrowing and the filling of existing burrows. Less than 5 holes (holes that penetrate the levee prism more than 6") in any 25' length of levee, and less than 2 cubic feet of material observed beside any hole. All holes are less than 6" in diameter.</p> <p>M Either more than 5 holes were observed in a 25' length of levee or at least one hole greater than 6" in diameter was observed. No rodent activity was observed on opposing slope and holes penetrate the levee prism more than 6".</p> <p>U More than 2 cubic feet of material was observed beside at least one hole. Either 5 or more holes were observed in a 25' length of levee or a hole 6" in diameter or more was observed with rodent activity on the opposing slope. Holes penetrate the levee prism more than 6".</p> <p>A/W The animal burrow control program has produced results per the standard, but the area should be monitored and the control program continued to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Animal Control	<p><b>A3</b> No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.</p> <p>A Rodent holes have been backfilled in a manner that adequately addresses the void created in the levee. A continuous animal burrow control program is in place that includes elimination of active burrowing and the filling of existing burrows. Less than 5 holes (holes that penetrate the levee prism more than 6") in any 25' length of levee, and less than 2 cubic feet of material observed beside any hole. All holes are less than 6" in diameter.</p> <p>M Either more than 5 holes were observed in a 25' length of levee or at least one hole greater than 6" in diameter was observed. No rodent activity was observed on opposing slope and holes penetrate the levee prism more than 6".</p> <p>U More than 2 cubic feet of material was observed beside at least one hole. Either 5 or more holes were observed in a 25' length of</p>	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Animal Control (cont)	<p><b>A3</b> No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.</p> <p style="padding-left: 40px;">levee or a hole 6" in diameter or more was observed with rodent activity on the opposing slope. Holes penetrate the levee prism more than 6".</p> <p>A/W The animal burrow control program has produced results per the standard, but the area should be monitored and the control program continued to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Closure Structures	<p><b>n/a</b></p> <p>A Closure structure in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components of closure clearly marked and installation instructions / procedures readily available. Trial erections have been accomplished.</p> <p>U Closure structure in poor condition. Parts missing or corroded. Placing equipment may not be available within normal warning time. Trial erections have not been accomplished in accordance with the O&amp;M manual.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Cracking	<p><b>CR1</b> Monitor and have inspected by geotechnical engineer.</p> <p>A No cracks were observed that are present year round that are greater than 2" deep, with transverse more than 1/3 width of the levee crown or longitudinal length with a length of 1/3 the height of the levee .</p> <p>M Cracks were observed that are between 2" and 6" deep, transverse between 1/3 and the full levee crown width, or have a longitudinal length of between 1/3 and the full height of the levee.</p> <p>U Cracks were observed that are 6" or deeper, have transverse cracks extending the entire levee width, have a longitudinal length greater than the height of the levee. Signs of vertical movement may have been observed.</p> <p>A/W No cracks were observed that violate standards, but the area should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Design & System Obsolescence
Cracking	<p><b>CR2</b> Schedule repair of subsidence prior to the next inspection.</p> <p>A No cracks were observed that are present year round that are greater than 2" deep, with transverse more than 1/3 width of the levee crown or longitudinal length with a length of 1/3 the height of the levee .</p> <p>M Cracks were observed that are between 2" and 6" deep, transverse between 1/3 and the full levee crown width, or have a longitudinal length of between 1/3 and the full height of the levee.</p> <p>U Cracks were observed that are 6" or deeper, have transverse cracks extending the entire levee width, have a longitudinal length greater than the height of the levee. Signs of vertical movement may have been observed.</p> <p>A/W No cracks were observed that violate standards, but the area should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Design & System Obsolescence

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Crown Surface / Depressions / Rutting (cont)	<b>C1</b> Add appropriate material and re-grade the levee to bring the crown above the design elevation.	Maintenance Deficiency	Maintenance Deficiency
	A The crown is at or above the design elevation.		
	M Sections of the crown have settled below the design elevation for distances less than 100'.		
	U Sections of the crown have settled below the design elevation for distances greater than 100'.		
	A/W Sections of the crown may have settled below the design elevation and may need maintenance in the future.		
	C The deficiency noted previously has been corrected.		
Crown Surface / Depressions / Rutting	<b>C2</b> Repair depressions or ruts in the crown or slope.	Maintenance Deficiency	Maintenance Deficiency
	A There are no ruts, pot holes, or other depressions on the levee crown or embankments. The levee crown and access roads are well established and drain properly without any ponded water.		
	M Some ruts, holes, settlement or other depressions on the levee less than 6" deep were observed.		
	U There are depressions greater than 6" deep that will pond water or a large amount of additional road material is needed to ensure all-weather access. The levee may have settled below the design elevation for a distance greater than 100'.		
	A/W The crown surface complies with standards but should be monitored and maintained to avoid a future maintenance issue.		
	C The deficiency noted previously has been corrected.		
Crown Surface / Depressions / Rutting	<b>C3</b> Add appropriate gravel or road base. Grade and compact.	Maintenance Deficiency	Maintenance Deficiency
	A The road is in all-weather condition and drain properly without any ponded water.		
	M The all-weather surface requires some maintenance but will not prevent access during the coming flood season.		
	U The all-weather surface will not able to be used during the coming flood season. Material should be added or the roadway re-graded before the next flood season.		
	A/W The crown surface complies with standards but should be monitored and maintained to avoid a future maintenance issue.		
	C The deficiency noted previously has been corrected.		
Emergency Supplies & Equipment	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A The LMA maintains a stockpile of sandbags, shovels, and other flood fight supplies from a centralized location which will adequately supply all needs for the initial days of a flood fight. The LMA determines the required quantity of supplies after consulting with inspector.		
	M The LMA does not maintain an adequate supply of flood fighting materials as part of their preparedness activities.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>AT</b> Agricultural tilling	Enforcement	Maintenance Deficiency
	A The levee and soil along the levee or within the landside easement is not being disced or tilled.		
	M Evidence of or active discing or tilling along the levee or within the landward easement was observed but will not inhibit operations and maintenance or emergency operations.		

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Encroachments (cont)	<b>AT</b> Agricultural tilling	Enforcement	Maintenance Deficiency
	U Evidence of or active discing or tilling along the levee or within the landside easement was observed that may inhibit operations and maintenance or emergency operations.		
	A/W Evidence of past active discing or tilling along the levee, within the landside easement, or nearby was observed that should be monitored.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>AV</b> Abandoned vehicles	Enforcement	Maintenance Deficiency
	A No abandoned vehicles blocking visibility or access along the levee or within the landside easement were observed.		
	M Abandoned vehicles blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.		
	U Abandoned vehicles blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	A/W No vehicles were observed, but have been in the past and the location should be monitored.		
C The deficiency noted previously has been corrected.			
Encroachments	<b>BU</b> Building	Enforcement	Design & System Obsolescence
	A Buildings along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.		
	M A building blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.		
	U A building blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	A/W No building was observed, but has been observed in the past and the location should be monitored.		
C The deficiency noted previously has been corrected.			
Encroachments	<b>CR</b> Crops	Enforcement	Design & System Obsolescence
	A No agricultural crops or related features blocking visibility or access along the levee or within the landside easement were observed.		
	M Agricultural crops or related features blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.		
	U Agricultural crops or related features blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	A/W Agricultural crops or related features were observed, but have been observed in the past and the location should be monitored.		
C The deficiency noted previously has been corrected.			
Encroachments	<b>DE</b> Debris	Enforcement	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Encroachments (cont)	<p><b>DE</b> Debris</p> <p>A No trash or debris blocking visibility or access along the levee or within the landside easement were observed.</p> <p>M Trash or debris blocking visibility and access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.</p> <p>U Trash or debris blocking visibility and access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.</p> <p>A/W No trash or debris were observed, but has been in the past and the location should be monitored.</p> <p>C The deficiency noted previously has been corrected.</p>	Enforcement	Maintenance Deficiency
Encroachments	<p><b>DT</b> Ditch</p> <p>A The ditch within the landside easement appears to be maintained per permit conditions and does not appear to create a slope instability or inhibit operations and maintenance or emergency operations.</p> <p>M An ditch blocking visibility or access along the levee or within the landside easement were observed but will not inhibit slope stability or operations and maintenance or emergency operations.</p> <p>U An ditch blocking visibility or access along the levee or within the landside easement were observed that may inhibit slope stability or operations and maintenance or emergency operations.</p> <p>A/W No ditch was observed, but has been observed in the past and the location should be monitored.</p> <p>C The deficiency noted previously has been corrected.</p>	Enforcement	Design & System Obsolescence
Encroachments	<p><b>EQ</b> Equipment</p> <p>A No construction or agricultural equipment blocking visibility or access along the levee or within the landside easement was observed.</p> <p>M Construction or agricultural equipment blocking visibility and access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.</p> <p>U Construction or agricultural equipment blocking visibility and access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.</p> <p>A/W No construction or agricultural equipment were observed, but has been observed in the past and the location should be monitored.</p> <p>C The deficiency noted previously has been corrected.</p>	Enforcement	Maintenance Deficiency
Encroachments	<p><b>FE</b> Fence</p> <p>A Fences along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.</p> <p>M Fences blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.</p> <p>U Fences blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.</p> <p>A/W No fence was observed, but has been observed in the past and the location should be monitored.</p> <p>C The deficiency noted previously has been corrected.</p>	Enforcement	Design & System Obsolescence

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Encroachments (cont)	<b>FE</b> Fence	Enforcement	Design & System Obsolescence
Encroachments	<b>FW</b> Firewood  A No firewood blocking visibility or access was along the levee or within the landside easement observed. M Firewood blocking visibility and access along the levee or within the landside easement was observed but will not inhibit operations and maintenance or emergency operations. U Firewood blocking visibility and access along the levee or within the landside easement was observed that may inhibit operations and maintenance or emergency operations. A/W No firewood was observed, but has been observed in the past and the location should be monitored. C The deficiency noted previously has been corrected.	Enforcement	Maintenance Deficiency
Encroachments	<b>GA</b> Garbage  A No trash or garbage blocking visibility or access along the levee or within the landside easement was observed. M Trash or garbage blocking visibility and access along the levee or within the landside easement was observed but will not inhibit operations and maintenance or emergency operations. U Trash or garbage blocking visibility and access along the levee or within the landside easement was observed that may inhibit operations and maintenance or emergency operations. A/W No garbage was observed, but has been observed in the past and the location should be monitored. C The deficiency noted previously has been corrected.	Enforcement	Maintenance Deficiency
Encroachments	<b>LI</b> Landscape Irrigation  A Landscape irrigation along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations. M Landscape irrigation blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations. U Landscape irrigation blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations. A/W No landscape irrigation was observed, but has been observed in the past and the location should be monitored. C The deficiency noted previously has been corrected.	Enforcement	Design & System Obsolescence
Encroachments	<b>MA</b> Material  A No material blocking visibility or access along the levee or within the landside easement was observed. M Material blocking visibility and access along the levee or within the landside easement was observed but will not inhibit operations and maintenance or emergency operations. U Material blocking visibility and access along the levee or within the landside easement was observed that may inhibit operations and maintenance or emergency operations.	Enforcement	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Encroachments (cont)	<b>MA</b> Material	Enforcement	Maintenance Deficiency
	A/W No material was observed, but has been observed in the past and the location should be monitored.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>MW</b> Monitoring Well	Maintenance Deficiency	Design & System Obsolescence
	A The monitoring well has been authorized by the USACE and CVFPB. It functions as designed to determine water levels and all associated equipment in functioning. The well does not appear to be plugged.		
	M The monitoring well has been authorized by the USACE and CVFPB. It does not appear to be functioning as designed but other methods of determining water levels nearby are adequate.		
	U The monitoring well has not been authorized by the USACE and CVFPB. It does not appear to function as designed and there are no other methods of determining water levels in proximity of the location.		
	A/W The monitoring well has been authorized by the USACE and CVFPB. It appears to be functioning as designed but should be monitored to ensure that it continues to do so.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>PI</b> Pipe	Enforcement	Maintenance Deficiency
	A Pipes through the levee at this location have been inspected and appear to be intact. No evidence of leakage has been observed and the pipe appears to be maintained per permit conditions.		
	M A pipe through the levee at this location is not maintained per permit conditions or may not be authorized but will not inhibit the operations and maintenance or emergency operations.		
	U A pipe through the levee at this location is not maintained per permit conditions or may not be authorized that may inhibit the operations and maintenance or emergency operations.		
	A/W A pipe through the levee was observed that appears to be leak free and maintained per permit conditions but should be monitored.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>PL</b> Pool	Enforcement	Design & System Obsolescence
	A Pool along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.		
	M Pool blocks visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.		
	U Pool blocks visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	A/W No pool was observed, but has been observed in the past and the location should be monitored.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>PO</b> Pole	Enforcement	Design & System Obsolescence

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Encroachments (cont)	<p><b>PO</b> Pole</p> <p>A A pole along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.</p> <p>M A pole blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.</p> <p>U A pole blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.</p> <p>A/W No pole was observed, but has been observed in the past and the location should be monitored.</p> <p>C The deficiency noted previously has been corrected.</p>	Enforcement	Design & System Obsolescence
Encroachments	<p><b>PR</b> Prunings</p> <p>A No prunings blocking visibility or access along the levee or within the landside easement were observed.</p> <p>M Prunings blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.</p> <p>U Prunings blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.</p> <p>A/W No prunings were observed, but have been observed in the past and the location should be monitored.</p> <p>C The deficiency noted previously has been corrected.</p>	Enforcement	Maintenance Deficiency
Encroachments	<p><b>RA</b> Ramp</p> <p>A A ramp along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.</p> <p>M A ramp blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.</p> <p>U A ramp blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.</p> <p>A/W No ramp was observed, but has been observed in the past and the location should be monitored.</p> <p>C The deficiency noted previously has been corrected.</p>	Enforcement	Design & System Obsolescence
Encroachments	<p><b>RW</b> Retaining Wall</p> <p>A Retaining Wall along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.</p> <p>M Retaining wall blocks visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.</p> <p>U Retaining wall blocks visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.</p> <p>A/W No retaining wall was observed, but has been observed in the past and the location should be monitored.</p>	Enforcement	Design & System Obsolescence

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Encroachments (cont)	<b>RW</b> Retaining Wall	Enforcement	Design & System Obsolescence
	C The deficiency noted previously has been corrected.		
Encroachments	<b>SI</b> Sign	Enforcement	Design & System Obsolescence
	A A sign along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.		
	M A sign blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.		
	U A sign blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	A/W No sign was observed, but has been observed in the past and the location should be monitored.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>ST</b> Stairway	Enforcement	Maintenance Deficiency
	A No unauthorized stairways were observed along the levee or within the landside easement. Stairs found appear to be maintained per permit conditions.		
	M A stairway on the levee or within the landside easement was observed that is not maintained per permit conditions or may not be authorized but will not inhibit operations and maintenance or emergency operations.		
	U A stairway on the levee or within the landside easement was observed that is not maintained per permit conditions or may not be authorized that may inhibit operations and maintenance or emergency operations.		
	A/W A stairway was observed that appears to be maintained per permit conditions but should be monitored.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>TA</b> Tank	Enforcement	Design & System Obsolescence
	A A tank along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.		
	M A tank blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.		
	U A tank blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	A/W No tank was observed, but has been observed in the past and the location should be monitored.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>TR</b> Tree or limb	Enforcement	Maintenance Deficiency
	A No discarded tree branches or limbs blocking visibility or access along the levee or within the landside easement were observed.		
	M Discarded tree branches or limbs blocking visibility or access along the levee or within the landside easement were observed but will		

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Encroachments (cont)	<b>TR</b> Tree or limb  not inhibit operations and maintenance or emergency operations.	Enforcement	Maintenance Deficiency
	<b>U</b> Discarded tree branches or limbs blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	<b>A/W</b> No discarded tree branches or limbs were observed, but have been observed in the past and the location should be monitored.		
	<b>C</b> The deficiency noted previously has been corrected.		
Encroachments	<b>UR</b> Urban	Enforcement	Design & System Obsolescence
	<b>A</b> Multiple encroachments of various types along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.		
	<b>M</b> Multiple encroachments of various types blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.		
	<b>U</b> Multiple encroachments of various types blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	<b>A/W</b> Multiple encroachments of various types were not currently observed, but have been observed in the past and the location should be monitored.		
	<b>C</b> The deficiency noted previously has been corrected.		
Encroachments	<b>WL</b> Wall	Enforcement	Design & System Obsolescence
	<b>A</b> Walls along the levee or within the landside easement appear to be maintained per permit conditions and do not appear to inhibit operations and maintenance or emergency operations.		
	<b>M</b> Walls blocking visibility or access along the levee or within the landside easement were observed but will not inhibit operations and maintenance or emergency operations.		
	<b>U</b> Walls blocking visibility or access along the levee or within the landside easement were observed that may inhibit operations and maintenance or emergency operations.		
	<b>A/W</b> No wall was observed, but has been observed in the past and the location should be monitored.		
	<b>C</b> The deficiency noted previously has been corrected.		
Erosion / Bank Caving	<b>E1</b> Note and monitor erosion site.	Maintenance Deficiency	Design & System Obsolescence
	<b>A</b> No erosion greater than 3" in depth was observed in the levee prism or stability berm.		
	<b>M</b> Erosion with a depth greater than 3" but less than 1' and less than 3' in length was observed in the levee prism or stability berm.		
	<b>U</b> Erosion with a depth of 1' or greater and a length of 3' or greater was observed in the levee prism or stability berm or overbuilt section.		
	<b>A/W</b> No erosion greater than 3" in depth was observed in the levee prism or stability berm, but the area should be monitored and maintained to avoid a future maintenance issue.		
	<b>C</b> The deficiency noted previously has been corrected.		

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Erosion / Bank Caving (cont)	<p><b>E2</b> Schedule repair of erosion site prior to the next inspection.</p> <p>A No erosion greater than 3" in depth was observed in the levee prism or stability berm.</p> <p>M Erosion with a depth greater than 3" but less than 1' and less than 3' in length was observed in the levee prism or stability berm.</p> <p>U Erosion with a depth of 1' or greater and a length of 3' or greater was observed in the levee prism or stability berm or overbuilt section.</p> <p>A/W No erosion greater than 3" in depth was observed in the levee prism or stability berm, but the area should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Design & System Obsolescence
Flood Preparedness & Training	<p><b>n/a</b></p> <p>A The LMA has a written system-specific flood response plan and a solid understanding of how to operate, maintain, and staff the Flood Protection System during a flood. LMA maintains a list of emergency contact information for appropriate personnel and other emergency response activities.</p> <p>M The LMA maintains a good working knowledge of flood response activities, but documentation of system-specific emergency procedures and emergency contact personnel is insufficient or out of date.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Operations & Maintenance Manuals	<p><b>n/a</b></p> <p>A Levee Owner's Manual, O&amp;M Manuals, and/or manufacturer's operating instructions are present.</p> <p>M Manuals are lost or missing or out of date. The LMA will obtain the documents prior to next scheduled inspection.</p> <p>U LMA has not obtained lost or missing manuals identified during previous inspection.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Repair Gates	<p><b>n/a</b></p> <p>A Gates open and close freely, locks are in place and there is little corrosion on metal parts.</p> <p>M Gates are damaged or corroded but appear to be operable.</p> <p>U Gates are damaged, corroded or impassable and require replacement. District or pass key is not accepted by attached locks.</p> <p>A/W The gate complies with standards but should be monitored and maintained to avoid a maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Riprap Revetments	<p><b>n/a</b></p> <p>A Existing riprap protection has not been displaced and is properly maintained and undamaged. No voids exist under the riprap / grout. Riprap has been engineered.</p> <p>M Existing riprap protection has been displaced but the subgrade is not exposed and there is no evidence of scour, erosion, or voids. Riprap adequately functions as slope protection.</p> <p>U Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Slope</p>	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Riprap Revetments (cont)	<p><b>n/a</b></p> <p>protection is needed. Or significant riprap displacement has occurred exposing the subgrade or fabric or there are voids under t</p> <p>A/W Riprap revetments comply with standards but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Seepage / Sandboils	<p><b>n/a</b></p> <p>A No evidence of unrepaired seepage, continuous saturated areas, or sandboils was observed at the time of the inspection.</p> <p>U Evidence of unrepaired seepage, continuous saturated areas, and/or and boils were observed. Records indicate that unrepaired seepage or sandboils exist.</p> <p>C The deficiency noted previously has been corrected.</p>	Design & System Obsolescence	Maintenance Deficiency
Slope Stability	<p><b>S1</b> Repair slope instability.</p> <p>A The slope does not show any separation of soil, any caving, soil movement, or other signs of an unstable slope.</p> <p>M Either a separation of soil can be seen, caving was observed on the slope or crown, tension cracks due to a slip or slide, or depressions in the slope were observed.</p> <p>U A crack or depression with a depth greater than 1" and a length of 200' was observed. A bulge in the slope or at the toe due to upward movement of the soil was observed.</p> <p>A/W The area complies with the slope stability standard but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Design & System Obsolescence
Slope Stability	<p><b>S2</b> Repair the levee slope damaged by foot traffic and prevent access where possible.</p> <p>A The slope does not show any separation of soil, any caving, soil movement, or other signs of an unstable slope.</p> <p>M Either a separation of soil can be seen, caving was observed on the slope or crown, tension cracks due to a slip or slide, or depressions in the slope were observed.</p> <p>U A crack or depression with a depth greater than 1" and a length of 200' was observed. A bulge in the slope or at the toe due to upward movement of the soil was observed.</p> <p>A/W The area complies with the slope stability standard but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Design & System Obsolescence
Slope Stability	<p><b>S3</b> Repair the levee slope damaged by vehicle traffic and prevent access where possible.</p> <p>A The slope does not show any separation of soil, any caving, soil movement, or other signs of an unstable slope.</p> <p>M Either a separation of soil can be seen, caving was observed on the slope or crown, tension cracks due to a slip or slide, or depressions in the slope were observed.</p> <p>U A crack or depression with a depth greater than 1" and a length of 200' was observed. A bulge in the slope or at the toe due to upward movement of the soil was observed.</p> <p>A/W The area complies with the slope stability standard but should be monitored and maintained to avoid a future maintenance issue.</p>	Maintenance Deficiency	Design & System Obsolescence

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Slope Stability (cont)	<p><b>S3</b> Repair the levee slope damaged by vehicle traffic and prevent access where possible.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Design & System Obsolescence
Trim / Thin Trees	<p><b>T1</b> Trim trees to at least five feet above ground level.</p> <p>A Any trees on the levee or the landside easement are trimmed up at least 5 feet above the levee slope and spaced enough to allow visibility and flood fight access. All trees are maintained per DWR's Vegetation Criteria.</p> <p>M Moderate density of limbs, leaves, or the trees themselves are partially obstructing visibility and flood fight access to the levee slope and/or within the landside easement.</p> <p>U Significant density of limbs, leaves, or the trees themselves are completely obstructing visibility and flood fight access to the levee slope and/or within the landside easement.</p> <p>A/W Trees comply with standards but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Trim / Thin Trees	<p><b>T2</b> Thin trees to allow visibility of the ground and room to flood fight.</p> <p>A Any trees on the levee or the landside easement are trimmed up at least 5 feet above the levee slope and spaced enough to allow visibility and flood fight access. All trees are maintained per DWR's Vegetation Criteria.</p> <p>M Moderate density of limbs, leaves, or the trees themselves are partially obstructing visibility and flood fight access to the levee slope and/or within the landside easement.</p> <p>U Significant density of limbs, leaves, or the trees themselves are completely obstructing visibility and flood fight access to the levee slope and/or within the landside easement.</p> <p>A/W Trees comply with standards but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Trim / Thin Trees	<p><b>T3</b> Trim and thin trees to allow visibility of the ground and room to flood fight.</p> <p>A Any trees on the levee or the landside easement are trimmed up at least 5 feet above the levee slope and spaced enough to allow visibility and flood fight access. All trees are maintained per DWR's Vegetation Criteria.</p> <p>M Moderate density of limbs, leaves, or the trees themselves are partially obstructing visibility and flood fight access to the levee slope and/or within the landside easement.</p> <p>U Significant density of limbs, leaves, or the trees themselves are completely obstructing visibility and flood fight access to the levee slope and/or within the landside easement.</p> <p>A/W Trees comply with standards but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Trim / Thin Trees	<p><b>T4</b> Trim trees over roadway to at least 12 feet above ground level.</p> <p>A Any trees on the levee or the landside easement are trimmed up at least 5 feet above the levee slope and spaced enough to allow visibility and flood fight access. All trees are maintained per DWR's Vegetation Criteria.</p>	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Trim / Thin Trees (cont)	<b>T4</b> Trim trees over roadway to at least 12 feet above ground level.	Maintenance Deficiency	Maintenance Deficiency
	M Moderate density of limbs, leaves, or the trees themselves are partially obstructing visibility and flood fight access to the levee slope and/or within the landside easement.		
	U Significant density of limbs, leaves, or the trees themselves are completely obstructing access along the roadway.		
	A/W Trees comply with standards but should be monitored and maintained to avoid a future maintenance issue.		
	C The deficiency noted previously has been corrected.		
Trim / Thin Trees	<b>T5</b> Tree stumps.	Maintenance Deficiency	Maintenance Deficiency
	U There are tree stumps visibly decomposing that may pose a risk to the integrity of the levee.		
	N Tree stumps with diameters of 2" or greater were observed on the levee or within the landside easement.		
	C The deficiency noted previously has been corrected.		
Underseepage Relief Wells	<b>n/a</b>	Maintenance Deficiency	Design & System Obsolescence
	A Toe drainage system and pressure relief wells necessary for maintaining levee stability during flood events functioned properly during the last flood event and no sediment is observed in horizontal system. Nothing is observed which would indicate that the system won't function properly during the next flood and is maintained per the O&M Manual. Maintenance records are available for review.		
	M Toe drainage system or pressure relief wells are not maintained in accordance with the O&M Manual but maintenance records are available, the well has maintained at least 80% efficiency, and has not fallen into disrepair or become clogged.		
	U Toe drainage systems or pressure relief wells have observable issues that would indicate that they wouldn't function properly in the next event, OR maintenance records were not available, OR cracks were observed between the ditch and well or in the ditch, OR the system is in disrepair and the pump is operating at less than 80% efficiency.		
	A/W The toe drainage system or pressure relief wells comply with standards but should be monitored and maintained to avoid a maintenance issue.		
	C The deficiency noted previously has been corrected.		
Vegetation	<b>V1</b> Control annual grass and weeds on the levee slopes and easements.	Maintenance Deficiency	Maintenance Deficiency
	A The Levee has no unwanted vegetation (brush, bushes, and undesirable weeds) blocking visibility or access; vegetation is maintained per DWR's Vegetation Criteria.		
	M Tall grass, weeds, brush or other vegetation partially block visibility of or access to the levee and/or 15 feet or the limit of the easement at the landside toe and 20 feet from shoulder to the waterside of the levee.		
	U Tall grass, weeds, brush or other vegetation completely block visibility of or access to the levee and/or to 15 feet or the limit of the easement at the landside toe and also 20 feet from shoulder to the waterside of the levee.		
	A/W The vegetation complies with standards but should be monitored and maintained to avoid a future maintenance issue.		
	C The deficiency noted previously has been corrected.		
Vegetation	<b>V2</b> Remove the wild growth other than native grasses from the levee slopes.	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Earthen Levee (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Vegetation (cont)	<p><b>V2</b> Remove the wild growth other than native grasses from the levee slopes.</p> <p>A The Levee has no unwanted vegetation (brush, bushes, and undesirable weeds) blocking visibility or access; vegetation is maintained per DWR's Vegetation Criteria.</p> <p>M Tall grass, weeds, brush or other vegetation partially block visibility of or access to the levee and/or 15 feet or the limit of the easement at the landside toe and 20 feet from shoulder to the waterside of the levee.</p> <p>U Tall grass, weeds, brush or other vegetation completely block visibility of or access to the levee and/or to 15 feet or the limit of the easement at the landside toe and also 20 feet from shoulder to the waterside of the levee.</p> <p>A/W The vegetation complies with standards but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Vegetation	<p><b>V4</b> Elderberries are blocking visibility and flood fight capability.</p> <p>A The Levee has no unwanted vegetation (brush, bushes, and undesirable weeds) blocking visibility or access; vegetation is maintained per DWR's Vegetation Criteria.</p> <p>M Tall grass, weeds, brush or other vegetation partially block visibility of or access to the levee and/or 15 feet or the limit of the easement at the landside toe and 20 feet from shoulder to the waterside of the levee.</p> <p>U Tall grass, weeds, brush or other vegetation completely block visibility of or access to the levee and/or to 15 feet or the limit of the easement at the landside toe and also 20 feet from shoulder to the waterside of the levee.</p> <p>A/W The vegetation complies with standards but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Vegetation	<p><b>V5</b> Other Vegetation Information.</p> <p>1 Between 75% and 50% of the levee slope (both sides) is covered with grass or sod.</p> <p>2 75% or more of the levee slope (both sides) is covered with grass or sod.</p> <p>3 Plants greater than 2 inches in diameter exist but do not obstruct visibility.</p> <p>4 Brush and/or weeds exist on the waterward side of the levee beyond the top 20 feet that obstruct visibility.</p> <p>5 This area complies with the USACE ETL 1110-2-571 vegetation standards.</p> <p>C The deficiency noted previously has been corrected.</p>	Design & System Obsolescence	Design & System Obsolescence
Vegetation	<p><b>V6</b> Landscaping</p> <p>A The Levee has no unwanted vegetation (brush, bushes, and undesirable weeds) blocking visibility or access; vegetation is maintained per DWR's Vegetation Criteria.</p> <p>M Landowner maintained vegetation partially block visibility of or access to the levee and/or 15 feet or the limit of the easement at the landside toe and 20 feet from shoulder to the waterside of the levee.</p> <p>U Landowner maintained vegetation completely block visibility of or access to the levee and/or to 15 feet or the limit of the easement at the landside toe and also 20 feet from shoulder to the waterside of the levee.</p> <p>A/W The vegetation complies with standards but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Enforcement	Enforcement

**Table G-1: Levee Inspection Rating Categories**

**Earthen Levee (cont)**

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Vegetation (cont)	<p><b>V7</b> Trees / Woody Vegetation</p> <p>A No trees or woody vegetation have been identified that currently pose an unacceptable threat to the integrity of the levee.</p> <p>U Trees or woody vegetation exist that pose an unacceptable threat to the integrity of the levee. Identified trees shall be removed and associated root balls and roots shall be appropriately removed in coordination with the resource agencies.</p> <p>A/W Monitor trees or woody vegetation which may pose a future unacceptable threat to the integrity of the levee.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Vegetation	<p><b>V8</b> Environmental Requirements.</p> <p>A/W Vegetation was introduced, allowed, required as mitigation, or endorsed by a previous DWR or USACE action as necessary to comply with environmental requirements.</p>	Design & System Obsolescence	Design & System Obsolescence
Vegetation	<p><b>V9</b> Keep the crown roadway free of vegetation.</p> <p>A The roadway has no unwanted vegetation (brush, bushes, and undesirable weeds) blocking visibility or access.</p> <p>M Tall grass, weeds, brush or other vegetation partially block visibility of or access along the roadway.</p> <p>U Tall grass, weeds, brush or other vegetation completely block visibility of or access along the roadway.</p> <p>A/W The roadway does not have any vegetation blocking visibility or access currently, but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Interior Drainage & Piping Systems

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Concrete Foundations	<b>n/a</b>  A No scouring / erosion or undermining near the structure. M Scouring / erosion near the footing of the structure but not close enough to affect structure stability during the next flood. U Scouring or undermining at the foundation that has affected structural integrity. A/W There was no scouring / erosion or undermining observed but the area should be monitored and maintained to avoid a future maintenance issue. C The deficiency noted previously has been corrected.	Maintenance Deficiency	Design & System Obsolescence
Concrete Surfaces (cont)	<b>n/a</b>  A Negligible spalling, scaling or cracking. If the concrete surface is weathered, rough to the touch or holds moisture, it is still satisfactory but should be seal coated to prevent freeze / thaw damage. M Spalling, scaling, and open cracking present, but the immediate integrity or performance of the project is not threatened. Reinforcing steel may be exposed. Repairs / sealing is necessary to prevent additional damage during periods of thawing and freeze. U Surface deterioration or deep cracks present that result in an threaten the integrity of the project. A/W Concrete surfaces were intact but should be monitored and maintained to avoid a future maintenance issue. C The deficiency noted previously has been corrected.	Maintenance Deficiency	Maintenance Deficiency
Concrete Tilting / Settlement	<b>n/a</b>  A There are no significant areas of tilting, sliding or settlement that would endanger the integrity of the project. M There are areas of tilting, sliding or settlement (either active or inactive) that need to be repaired. The integrity of the structure is not in danger. U There are areas of tilting, sliding or settlement (either active or inactive) that threaten the structure's integrity and performance. A/W There was no concrete tilting or settlement observed but the area should be monitored and maintained to avoid a future maintenance issue. C The deficiency noted previously has been corrected.	Maintenance Deficiency	Design & System Obsolescence
Culverts: Breaks / Holes / Cracks	<b>n/a</b>  A There are no breaks, holes, cracks in the culvert that would result in significant water leakage. Pipes are in good condition or have been relined with appropriate material, which is still in good condition. M There are breaks, holes, cracks in the culvert that would result in water leakage and need to be repaired, but do not threaten the integrity of the project. Pipes may showing deterioration but do not threaten the integrity of the project. U Culvert has deterioration and/or has significant leakage such that it threatens the integrity of the project. Pipes are in danger of collapsing or have already begun to collapse. A/W The culvert does not currently have any significant integrity issues but should be monitored and maintained to avoid a future maintenance issue. C The deficiency noted previously has been corrected.	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Interior Drainage & Piping Systems (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Culverts: Inlets / Outlets (cont)	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A There is little or no debris, sediment or vegetation blocking the culverts, inlets, sump or discharge areas. The channel capacity for designed flow is not affected.		
	M Debris, sediment or vegetation blocks less than 10% of the culvert opening, but must be removed.		
	U Accumulated debris, sediment or vegetation blocks more than 10% of the culvert opening, impairing the culvert's capacity and hydraulic effectiveness.		
	A/W No material was observed blocking the culvert, but has been observed in the past and the location should be monitored and maintained.		
	C The deficiency noted previously has been corrected.		
Electric Gate Operators	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A All electric gate operators are in good working condition and are adequately powered, and are capable of opening and closing the gate properly. Preventative maintenance is being performed and the system is tested periodically.		
	M All electric gate operators are operational with minor deficiencies, but should perform through the next period of usage.		
	U The electric gate operators are not operational, or the power source is not considered reliable to sustain operations during flood conditions.		
	A/W Electric gate operators functioned as designed but should be monitored and maintained to avoid a future maintenance issue.		
	C The deficiency noted previously has been corrected.		
Encroachments	<b>n/a</b>	Maintenance Deficiency	Enforcement
	A No trash, debris, excavation, structures, or other obstructions present within the project easement area was observed. Encroachments which do not diminish proper functioning of the project have been previously approved by the CVFPB and are maintained per		
	M Trash, debris, excavations, structures, or other obstructions present, or inappropriate activities that will not inhibit project operations and maintenance or emergency operations was observed. Encroachments have been approved by the CVFPB but may need ma		
	U Trash, debris, excavation, structures, or other obstructions present, or inappropriate activities that will inhibit project operations and maintenance or emergency operation was observed.		
	A/W Encroachments were not currently observed, but have been observed in the past and the location should be monitored. Permitted encroachments should be monitored and maintained for compliance with permit conditions.		
	C The deficiency noted previously has been corrected.		
Erosion Areas	<b>n/a</b>	Maintenance Deficiency	Design & System Obsolescence
	A No erosion greater than 3" in depth was observed in the levee prism or stability berm.		
	M Erosion with a depth greater than 3" but less than 1' and less than 3' in length was observed in the levee prism or stability berm.		
	U Erosion with a depth of 1' or greater and a length of 3' or greater was observed in the levee prism or stability berm or overbuilt section.		
	A/W No erosion greater than 3" in depth was observed in the levee prism or stability berm, but the area should be monitored and		

## Table G-1: Levee Inspection Rating Categories

### Interior Drainage & Piping Systems (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Erosion Areas (cont)	<b>n/a</b>	Maintenance Deficiency	Design & System Obsolescence
	<p>maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>		
Flap Gates	<b>n/a</b>	Maintenance Deficiency	Enforcement
	A Flap gates open and close easily with minimal leakage. Gates show no corrosion damage and have been maintained.		
	M Gates will not fully open or close because of obstructions that can be easily removed or have corrosion damage that requires maintenance.		
	U Gate is missing, has been damaged or has deteriorated and needs repair. Gate will not prevent flow from the channel toward the landside.		
	A/W Flap gates open and close with minimal leakage and function as designed but should be monitored and maintained to avoid a future maintenance issue.		
	C The deficiency noted previously has been corrected.		
Manual Gate Operators	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A All manual gate operators are in good working condition and are capable of opening and closing the gate properly. Preventative maintenance is being performed and the system is tested periodically.		
	M Manual gate operators are operational with minor deficiencies, but should perform through the next period of usage.		
	U Manual gate operators are not operational.		
	C The deficiency noted previously has been corrected.		
Metal Pipes	<b>n/a</b>	Maintenance Deficiency	Enforcement
	A There are no breaks, holes, cracks in the pipe that would result in significant water leakage. Pipes are in good condition or have been relined with appropriate material, which is still in good condition.		
	M There are breaks, holes, cracks in the pipe that would result in water leakage and need to be repaired, but do not threaten the integrity of the project. Pipes may showing deterioration but do not threaten the integrity of the project.		
	U Pipe has deterioration and/or has significant leakage such that it threatens the integrity of the project. Pipes are in danger of collapsing or have already begun to collapse.		
	A/W The Pipe does not currently have any significant integrity issues but should be monitored and maintained to avoid a future maintenance issue.		
	C The deficiency noted previously has been corrected.		
Revetments	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A Existing riprap protection has not been displaced and is properly maintained and undamaged. No voids exist under the riprap / grout. Riprap has been engineered.		
	M Existing riprap protection has been displaced but the subgrade is not exposed and there is no evidence of scour, erosion, or voids.		

## Table G-1: Levee Inspection Rating Categories

### Interior Drainage & Piping Systems (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Revetments (cont)	<p><b>n/a</b></p> <p>Riprap adequately functions as slope protection.</p> <p>U Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Slope protection is needed. Or significant riprap displacement has occurred exposing the subgrade or fabric or there are voids under t</p> <p>A/W Riprap revetments comply with standards but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Security Fencing	<p><b>n/a</b></p> <p>A Safety / security fencing is good condition and provides protection against falling or unauthorized access. Gates open and close freely, locks are in place, and there is little corrosion on metal parts.</p> <p>M Safety / security fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged.</p> <p>U Safety / security fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous project features are not secured.</p> <p>A/W Security fencing was adequate but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Sluice / Slide Gates	<p><b>n/a</b></p> <p>A Gates open and close freely with minor leakage. Sill is free of sediment and other obstructions. Gates and lifters have been maintained.</p> <p>M Gates have been damaged or have deteriorated, and open and close with resistance or binding. Leakage quantity is controllable and is not a threat to project performance. Maintenance is required.</p> <p>U Gates do not open or close. Gate, stem, lifter and/or guides are damaged or corroded.</p> <p>A/W Gates functioned as designed but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Trash Racks	<p><b>n/a</b></p> <p>A Trash racks are fastened in place and properly maintained.</p> <p>M Trash racks are in place but are unfastened or have bent bars that allow debris to enter into the pipe or pump station. Repair or replacement is required.</p> <p>U Trash rack is missing, damaged or not operational, or deficiencies will inhibit operations during the next flood event.</p> <p>A/W The trash rack was in place and functioning as designed but should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Vegetation & Obstructions	<p><b>n/a</b></p> <p>A Minimal, scattered obstructions or vegetation. The flow is not impeded.</p>	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Interior Drainage & Piping Systems (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Vegetation & Obstructions (cont)	<p><b>n/a</b></p> <p>M Log jams, snags, vegetation growth (such as cat tails, bull rushes, bushes or saplings) or other obstructions block approximately 25% of the designed channel capacity.</p> <p>U Log jams, snags, vegetation growth (such as cat tails, bull rushes, bushes or saplings) or other obstructions block approximately 50% of the designed channel capacity.</p> <p>A/W Vegetation does not currently impede flow significantly, but the area should be monitored and maintained to avoid a future maintenance issue.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Concrete Floodwalls

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type	
Closure Structures	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			The closure structure for lower areas of floodwalls is in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components of closure clearly marked and installation instructions / procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual.
	U			The closure structure for lower areas of floodwalls is in poor condition. Parts missing or corroded. Placing equipment may not be available within normal warning time. Trial erections have not been accomplished in accordance with the O&M Manual.
	C			The deficiency noted previously has been corrected.
Concrete Foundations (cont)	<b>n/a</b>	Maintenance Deficiency	Design & System Obsolescence	
	A			No scouring / erosion or undermining near the floodwall.
	M			Scouring / erosion near the footing of the floodwall but not close enough to affect project stability during the next flood.
	U			Scouring or undermining at the foundation that has affected integrity of the floodwall.
	C			The deficiency noted previously has been corrected.
Concrete Surfaces	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			Negligible spalling, scaling or cracking. If the concrete surface is weathered, rough to the touch or holds moisture, it is still satisfactory but should be seal coated to prevent freeze / thaw damage.
	M			Spalling, scaling, and open cracking present, but the immediate integrity or performance of the floodwall is not threatened. Reinforcing steel may be exposed. Repairs / sealing is necessary to prevent additional damage during periods of thawing and freeze.
	U			Surface deterioration or deep cracks present that result in an threaten the integrity of the floodwall.
	C			The deficiency noted previously has been corrected.
Concrete Tilting / Settlement	<b>n/a</b>	Maintenance Deficiency	Design & System Obsolescence	
	A			There are no significant areas of tilting, sliding or settlement that would endanger the integrity of the floodwall.
	M			There are areas of tilting, sliding or settlement (either active or inactive) that need to be repaired. The integrity of the floodwall is not in danger.
	U			There are areas of tilting, sliding or settlement (either active or inactive) that threaten the integrity of the floodwall.
	C			The deficiency noted previously has been corrected.
Encroachments	<b>n/a</b>	Maintenance Deficiency	Enforcement	
	A			No trash, debris, excavations, structure, or other obstructions that block visibility or access was along the floodwall or within the easement observed. No inappropriate activities that inhibit project operations and maintenance or emergency operations were observed.
	M			Trash, debris, excavations, structure, or other obstructions blocking visibility or access along the floodwall or within the easement was observed but will not inhibit operations and maintenance or emergency operations.
	U			Trash, debris, excavation, structures, or other obstructions along the floodwall or within the easement was observed that may inhibit

## Table G-1: Levee Inspection Rating Categories

### Concrete Floodwalls (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Encroachments (cont)	<p><b>n/a</b></p> <p>operations and maintenance or emergency operations.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Enforcement
Erosion / Bank Caving	<p><b>n/a</b></p> <p>A No active erosion or bank caving observed on the landward or on the waterside of the floodwall.</p> <p>M There are areas where active erosion is occurring or has occurred on or near the floodwall, but project integrity is not threatened.</p> <p>U Erosion or caving is occurring or has occurred that threatens the stability and integrity of the floodwall. The erosion or caving has compromised project integrity.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Design & System Obsolescence
Monolith Joints	<p><b>n/a</b></p> <p>A The monolith joint material is in good condition.</p> <p>M The monolith joint material is deteriorating and needs to be repaired or replaced to prevent spalling and cracking during freeze / thaw cycles.</p> <p>U The monolith joint material is severely deteriorated and the concrete has spalled and cracked, damaging the water stop to the point where it will not provide the intended level of protection during a flood.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency
Underseepage Relief Wells	<p><b>n/a</b></p> <p>A Toe drainage system and pressure relief wells necessary for maintaining project stability during flood events functioned properly during the last flood event and no sediment is observed in horizontal system. Nothing is observed which would indicate that the system won't function properly during the next flood and is maintained per the O&amp;M Manual. Maintenance records are available for review.</p> <p>M Toe drainage system or pressure relief wells are not maintained in accordance with the O&amp;M Manual but maintenance records are available, the well has maintained at least 80% efficiency, and has not fallen into disrepair or become clogged.</p> <p>U Toe drainage systems or pressure relief wells have observable issues that would indicate that they wouldn't function properly in the next event. Maintenance records are not available. Cracks were observed between the ditch and well or in the ditch. The system is in disrepair and the well is operating at less than 80% efficiency.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Design & System Obsolescence
Vegetation	<p><b>n/a</b></p> <p>A No vegetation blocking visibility or access was along the floodwall or within the easement observed.</p> <p>M Vegetation blocking visibility or access along the floodwall or within the easement was observed but will not inhibit operations and maintenance or emergency operations.</p> <p>U Vegetation along the floodwall or within the easement was observed that may inhibit operations and maintenance or emergency</p>	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Concrete Floodwalls (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Vegetation (cont)	<p><b>n/a</b></p> <p>operations.</p> <p>C The deficiency noted previously has been corrected.</p>	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Pump Stations

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Closure Structures	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A Closure structures for lower areas of floodwall or levee are in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components of closure clearly marked and installation instructions / procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual.		
	U Closure structure for lower areas of floodwall or levee in poor condition. Parts missing or corroded. Placing equipment may not be available within normal warning time. Trial erections have not been accomplished in accordance with the O&M manual.		
	N This plant does not have a closure structure.		
Communications (cont)	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A Telephone, cellular telephone, two-way radio, or similar device is available to pumping plant operator or maintenance personnel.		
	U Pumping plant operator or maintenance personnel required to leave the plant and drive to access communications.		
Cranes	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A Crane operational, and has been inspected and load tested in accordance with OSHA requirements.		
	M Crane has not been inspected or operationally tested within the past year, or there are visible signs of corrosion, oil leakage, etc., requiring maintenance.		
	U Crane not operational, or tagged out of service.		
	N There is no crane is located at this station.		
Electric Gate Operators	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A All electric gate operators are in good working condition and are adequately powered, and are capable of opening and closing the gate properly. Preventative maintenance is being performed and the system is tested periodically.		
	M All electric gate operators are operational with minor deficiencies, but should perform through the next period of usage.		
	U The electric gate operators are not operational, or the power source is not considered reliable to sustain operations during flood conditions.		
	N No electric gate operators exist on this plant. Gates are only opened manually or do not exist at this plant.		
Flap Gates	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A Flap gates open and close easily with minimal leakage. Gates show no corrosion damage and have been maintained.		
	M Gates will not fully open or close because of obstructions that can be easily removed or have corrosion damage that requires maintenance.		
	U Gate is missing, has been damaged or has deteriorated and needs repair. Gate will not prevent flow from the channel toward the landside.		
	N There are no flap gates on this plant and are not needed to ensure water does not flow from the channel toward the landside.		

## Table G-1: Levee Inspection Rating Categories

### Pump Stations (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Intake and Discharge Pipes (cont)	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A There are no breaks, holes, corrosion or cracks in the pipe that would result in significant water leakage. The pipe shape is essentially circular. All joints appear to be closed and the soil tight.		
	M Pipe is not leaking significantly but shows signs of corrosion, deformation, or joint damage and requires maintenance.		
	U Pipe has deterioration and/or leakage. Immediate repair or replacement required.		
Manual Gate Operators	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A All manual gate operators are in good working condition and are capable of opening and closing the gate properly. Preventative maintenance is being performed and the system is tested periodically.		
	M Manual gate operators are operational with minor deficiencies, but should perform through the next period of usage.		
	U Manual gate operators are not operational.		
N There are no sluice/slide gates on this plant.			
Motors, Engines, Fans & Gear Reducers	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A All items are operational. Preventive maintenance and lubrication is being performed and the system is periodically subjected to performance testing. Instrumentation, alarms, and auto shutdowns are operational.		
	M Systems have minor deficiencies, but are operational and will function adequately through the next flood.		
	U One or more primary motors or systems are not operational.		
N There are no motors or auxiliary mechanical equipment as part of this station.			
Operating Log	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A Operation and Maintenance log is present at the pumping plant and is being used and updated. Personnel have been trained in pumping plant operations. Names and last training date shown in the log book.		
	U No operating log present, or refresher training for personnel has not been conducted.		
Operation & Maintenance Manual	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A Operation and Maintenance (O&M) Manual and/or posted operating instructions are present and adequately covers all pertinent pumping plant features.		
	U Operation and Maintenance (O&M) Manual and/or posted operating instructions are missing or sponsor is unsure of location.		
Other Metallic Items	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A All metal parts are protected from corrosion damage, and show no rust or deterioration that would cause a safety concern.		
	M Corrosion seen on metallic parts (except equipment anchors) appears maintainable.		
	U Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues.		
N There are no metallic parts at this plant other than pumps and associated pressure pipes.			

## Table G-1: Levee Inspection Rating Categories

### Pump Stations (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Other Metallic Items (cont)	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
Plant Building	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Design & System Obsolescence
	A Plant structure is in good structural condition with no major cracks in concrete or brick. The roof is not leaking, exhaust fans are operational, there are no exposed electrical components, and the working environment is safe.		
	M There is significant cracking in the building structure, or the building is damaged in other ways such that it needs repair but does not threaten pumping operations.		
	U The structural integrity or stability of the structure is threatened, or there is other damage to the building such that pumping operations can not be performed as intended.		
Power	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Design & System Obsolescence
	A The power source is adequate, safe, and reliable. Backup generators are on hand or there is a reliable backup power plan in place. Backup units are properly sized, operational, periodically exercised, and properly maintained.		
	U Power source not considered safe or reliable to sustain operations during flood conditions.		
	N Pumping plant does not need electricity to operate. Pumping capacity can be maintained without power.		
Pump Control Systems	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A Operational and maintained free of damage, corrosion, or other debris.		
	M Operational with minor discrepancies. Will function adequately during the next flood event.		
	U Pump controls not operational. May not function adequately during the next flood season.		
Pumps	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A All pumps appear to be properly maintained and lubricated. System is periodically tested. There is no evidence of cavitation, vibration, or unusual sounds.		
	M Minor deficiencies exist which need to be closely monitored or repaired, such as the presence of minor vibrations or the corrosion of the pump shaft housing. However the pumps are operational and are expected to perform through the next expected period of usage.		
	U One or more of the pumps are not operational, or the pump capacity has degraded to the point where project performance is in question.		
Safety	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	A No exhaust leaks in building. Fuel storage/distribution meets state/local requirement. Fire extinguishers on hand, of sufficient quantity, and properly charged. Safety hardware installed. Required safety items used (hearing, eyes, etc.).		
	M Minor safety hazards are present, but do not pose an immediate threat to the pumping plant or personnel at the plant. Corrections should be made prior to the next annual inspection.		
	U Safety issues exist that could cause injury or loss of life.		

## Table G-1: Levee Inspection Rating Categories

### Pump Stations (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Safety (cont)	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
Security Fencing	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.  A Safety / security fencing is good condition and provides protection against falling or unauthorized access. Gates open and close freely, locks are in place, and there is little corrosion on metal parts. M Safety / security fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged. U Safety / security fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous project features are not secured. N No safety / security fencing or gates exist or are needed.	Maintenance Deficiency	Maintenance Deficiency
Sluice / Slide Gates	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.  A Gates open and close freely with minor leakage. Sill is free of sediment and other obstructions. Gates and lifters have been maintained. M Gates have been damaged or have deteriorated, and open and close with resistance or binding. Leakage quantity is controllable and is not a threat to project performance. Maintenance is required. U Gates do not open or close. Gate, stem, lifter and/or guides are damaged or corroded. N There are no sluice / slide gates on this plant and are not needed to ensure water does not flow from the channel toward the landside.	Maintenance Deficiency	Maintenance Deficiency
Sumps/Wet Well	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.  A Sumps / Wet wells are clear of excessive debris, sediment, or other obstructions. Procedures are in place to move debris accumulation during operation. M Debris, sediment, or other obstructions are present and must be removed, but the sump/wet well will function as intended during the next flood event. Procedures are in place to remove debris accumulation during operation. U Large debris or excessive silt present which will hinder or damage pumps during operation, or no procedures have been established to remove debris accumulation during operation.	Maintenance Deficiency	Maintenance Deficiency
Trash Racks	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.  A Trash racks are fastened in place and properly maintained. M Trash racks are in place but are unfastened or have bent bars that allow debris to enter into the pipe or pump station. Repair or replacement is required. U Trash rack is missing, damaged or not operational, or deficiencies will inhibit operations during the next flood event.	Maintenance Deficiency	Maintenance Deficiency
Trash Rakes	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.  A Drive chain, bearings, gear reducers, and other components are in good operating condition and are being properly maintained.	Maintenance Deficiency	Maintenance Deficiency

## Table G-1: Levee Inspection Rating Categories

### Pump Stations (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Trash Rakes (cont)	<b>P1</b> Item inspected visually only. Item was not operated during the inspection.	Maintenance Deficiency	Maintenance Deficiency
	M The trash rake is in need of maintenance, but is still operational.		
	U Trash rake is not operational or deficiencies will inhibit operations during the next flood event.		
	N There are no trash rakes for this pumping plant.		

## Table G-1: Levee Inspection Rating Categories

### Structures & Concrete Lined Channels

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type	
Closure Structures	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			Closure structures for lower areas of floodwall or levee are in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components of closure clearly marked and installation instructions / procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual.
	U			Closure structures for lower areas of floodwall or levee in poor condition. Parts missing or corroded. Placing equipment may not be available within normal warning time. Trial erections have not been accomplished in accordance with the O&M manual.
	N			This structure does not have a closure structure.
Concrete Foundations (cont)	<b>n/a</b>	Maintenance Deficiency	Design & System Obsolescence	
	A			No scouring / erosion or undermining near the structure.
	M			Scouring / erosion near the footing of the structure but not close enough to affect structure stability during the next flood.
	U			Scouring or undermining at the foundation that has affected structural integrity.
	N			There are no concrete foundations at this structure.
Concrete Surfaces	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			Negligible spalling, scaling or cracking. If the concrete surface is weathered, rough to the touch or holds moisture, it is still satisfactory but should be seal coated to prevent freeze / thaw damage.
	M			Spalling, scaling, and open cracking present, but the immediate integrity or performance of the structure is not threatened. Reinforcing steel may be exposed. Repairs / sealing is necessary to prevent additional damage during periods of thawing and freeze.
	U			Surface deterioration or deep cracks present that result in an threaten the integrity of the structure.
	N			There are no concrete surfaces on this structure.
Concrete Tilting / Settlement	<b>n/a</b>	Maintenance Deficiency	Design & System Obsolescence	
	A			There are no significant areas of tilting, sliding or settlement that would endanger the integrity of the project.
	M			There are areas of tilting, sliding or settlement (either active or inactive) that need to be repaired. The integrity of the structure is not in danger.
	U			There are areas of tilting, sliding or settlement (either active or inactive) that threaten the structure's integrity and performance.
	N			There is no concrete at this structure.
Culverts: Breaks / Holes / Cracks	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			There are no breaks, holes, cracks in the culvert that would result in significant water leakage. Pipes are in good condition or have been relined with appropriate material, which is still in good condition.
	M			There are breaks, holes, cracks in the culvert that would result in water leakage and need to be repaired, but do not threaten the integrity of the project. Pipes may showing deterioration but do not threaten the integrity of the project.
	U			Culvert has deterioration and/or has significant leakage such that it threatens the integrity of the project. Pipes are in danger of collapsing or have already begun to collapse.

## Table G-1: Levee Inspection Rating Categories

### Structures & Concrete Lined Channels (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Culverts: Breaks / Holes / Cracks (cont)	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	N There are no culverts at this structure that were able to be inspected.		
Culverts: Inlets / Outlets	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A There is little or no debris, sediment or vegetation blocking the culverts, inlets, sump or discharge areas. The channel capacity for designed flow is not affected.		
	M Debris, sediment or vegetation blocks less than 10% of the culvert opening, but must be removed.		
	U Accumulated debris, sediment or vegetation blocks more than 10% of the culvert opening, impairing the culvert's capacity and hydraulic effectiveness.		
	N There are no culverts at this structure that were able to be inspected.		
Electric Gate Operators	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A All electric gate operators are in good working condition and are adequately powered, and are capable of opening and closing the gate properly. Preventative maintenance is being performed and the system is tested periodically.		
	M All electric gate operators are operational with minor deficiencies, but should perform through the next period of usage.		
	U The electric gate operators are not operational, or the power source is not considered reliable to sustain operations during flood conditions.		
	N No electric gate operators exist on this structure. Gates are only opened manually or do not exist at this structure.		
Encroachments	<b>n/a</b>	Maintenance Deficiency	Enforcement
	A No trash, debris, excavation, structures, or other obstructions present within the easement. Encroachments which do not diminish proper functioning of the project have been previously approved by the Central Valley Flood Protection Board.		
	M Trash, debris, excavations, structures, or other obstructions present, or inappropriate activities that will not inhibit project operations and maintenance or emergency operations were observed. Encroachments have been approved by the Central Valley Flood Protection Board.		
	U Trash, debris, excavation, structures, or other obstructions present, or inappropriate activities that will inhibit project operations and maintenance or emergency operation were observed.		
Erosion / Bank Caving	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A No active erosion or bank caving observed on the landward or on the waterside of the levee / channel.		
	M There are areas where active erosion is occurring or has occurred on or near the levee / bank, but project integrity is not threatened.		
	U Erosion or caving is occurring or has occurred that threatens the stability and integrity of the project. The erosion or caving has compromised project integrity.		

## Table G-1: Levee Inspection Rating Categories

### Structures & Concrete Lined Channels (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type	
Flap Gates (cont)	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			Flap gates open and close easily with minimal leakage. Gates show no corrosion damage and have been maintained.
	M			Gates will not fully open or close because of obstructions that can be easily removed or have corrosion damage that requires maintenance.
	U			Gate is missing, has been damaged or has deteriorated and needs repair. Gate will not prevent flow from the channel toward the landside.
	N			There are no flap gates on this structure that were able to be inspected and are not needed to ensure water does not flow from the channel toward the landside.
Manual Gate Operators	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			All manual gate operators are in good working condition and are capable of opening and closing the gate properly. Preventative maintenance is being performed and the system is tested periodically.
	M			Manual gate operators are operational with minor deficiencies, but should perform through the next period of usage.
	U			Manual gate operators are not operational.
	N			There are no sluice/slide gates on this structure.
Metal Pipes	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			There are no breaks, holes, cracks in the culvert that would result in significant water leakage. Metal pipes are in good condition or have been relined with appropriate material, which is still in good condition.
	M			There are breaks, holes, cracks in the pipe that would result in water leakage and need to be repaired, but do not threaten the integrity of the project. Pipes may showing deterioration but do not threaten the integrity of the project.
	U			Pipe has deterioration and/or has significant leakage such that it threatens the integrity of the structure. Pipes are in danger of collapsing or have already begun to collapse.
	N			There are no pipes at this structure that were able to be inspected.
Monolith Joints	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			The monolith joint material is in good condition.
	M			The monolith joint material is deteriorating and needs to be repaired or replaced to prevent spalling and cracking during freeze / thaw cycles.
	U			The monolith joint material is severely deteriorated and the concrete has spalled and cracked, damaging the water stop to the point where it will not provide the intended level of protection during a flood.
	N			There are no monolith joints at this structure.
Operation & Maintenance Manual	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency	
	A			Operation and Maintenance (O&M) Manual and/or posted operating instructions are present and adequately covers all pertinent structure features.

## Table G-1: Levee Inspection Rating Categories

### Structures & Concrete Lined Channels (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Operation & Maintenance Manual (cont)	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	U    Operation and Maintenance (O&M) Manual and/or posted operating instructions are missing or sponsor is unsure of location.		
Other Metallic Items	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A    All metal parts are protected from corrosion damage, and show no rust or deterioration that would cause a safety concern.		
	M    Corrosion seen on metallic parts (except equipment anchors) appears maintainable.		
	U    Metallic parts are severely corroded and require replacement to prevent failure, equipment damage, or safety issues.		
	N    There are no metallic parts at this structure.		
Photo Documentation	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	N    Not Rated		
Revetments	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A    Existing riprap protection is properly maintained and is undamaged. Riprap clearly visible.		
	M    No riprap displacement or scouring activity that could undercut banks, erode embankments, or restrict desired flow. Unwanted vegetation must be cleared and sprayed with an appropriate herbicide.		
	U    Dense brush, trees, or grasses hide the rock protection, or meandering and/or scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Cavities may exist under the revetment.		
	N    There is no revetment at this location and is not needed.		
Safety	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A    No exhaust leaks in building. Fuel storage/distribution meets state/local requirement. Fire extinguishers on hand, of sufficient quantity, and properly charged. Safety hardware installed. Required safety items used (hearing, eyes, etc.).		
	M    Minor safety hazards are present, but do not pose an immediate threat to the pumping plant or personnel at the plant. Corrections should be made prior to the next annual inspection.		
	U    Safety issues exist that could cause injury or loss of life.		
Security Fencing	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A    Safety / security fencing is good condition and provides protection against falling or unauthorized access. Gates open and close freely, locks are in place, and there is little corrosion on metal parts.		
	M    Safety / security fencing or gates are damaged or corroded but appear to be maintainable. Locks may be missing or damaged.		
	U    Safety / security fencing and gates are damaged or corroded to the point that replacement is required, or potentially dangerous project features are not secured.		
	N    No safety / security fencing or gates exist or are needed.		

## Table G-1: Levee Inspection Rating Categories

### Structures & Concrete Lined Channels (cont)

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Shoaling / Sedimentation (cont)	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A No shoaling or sedimentation present.		
	M Non-aquatic grasses present on shoal. No trees or brush are present on shoal, and structure operation and channel flows are not impeded.		
	U Shoaling is well established, stabilized by trees, brush or other vegetation. Shoals are obstructing structure operation or diverting flow to channel bank causing bank erosion and undercutting.		
Sluice/Slide Gates	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A Gates open and close freely with minor leakage. Sill is free of sediment and other obstructions. Gates and lifters have been maintained.		
	M Gates have been damaged or have deteriorated, and open and close with resistance or binding. Leakage quantity is controllable and is not a threat to project performance. Maintenance is required.		
	U Gates do not open or close. Gate, stem, lifter and/or guides are damaged or corroded.		
	N There are no sluice / slide gates on this structure and are not needed to ensure water does not flow from the channel toward the landside.		
Trash Racks	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A Trash racks are fastened in place and properly maintained.		
	M Trash racks are in place but are unfastened or have bent bars that allow debris to enter into the pipe or pump station. Repair or replacement is required.		
	U Trash rack is missing, damaged or not operational, or deficiencies will inhibit operations during the next flood event.		
	N There are no trash racks that were able to be inspected at this structure.		
Trash Rakes	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A Drive chain, bearings, gear reducers, and other components are in good operating condition and are being properly maintained.		
	M The trash rake is in need of maintenance, but is still operational.		
	U Trash rake is not operational or deficiencies will inhibit operations during the next flood event.		
	N There are no trash rakes at the structure.		
Vegetation & Obstructions	<b>n/a</b>	Maintenance Deficiency	Maintenance Deficiency
	A Minimal, scattered obstructions or vegetation. The flow is not impeded.		
	M Log jams, snags, vegetation growth (such as cat tails, bull rushes, bushes or saplings) or other obstructions block approximately 25% of the capacity.		
	U Log jams, snags, vegetation growth (such as cat tails, bull rushes, bushes or saplings) or other obstructions block approximately 50% of the capacity.		

## Table G-1: Levee Inspection Rating Categories

### Rivers, Channels & Designated Floodways

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Concrete Foundations	<p><b>n/a</b></p> <p>A No scouring / erosion or undermining near the channel.</p> <p>M Scouring / erosion near the footing of the structure but not close enough to affect channel integrity or capacity during the next flood.</p> <p>U Scouring or undermining at the foundation that threaten the channel's integrity and capacity.</p>	Maintenance Deficiency	Design & System Obsolescence
Concrete Surfaces (cont)	<p><b>n/a</b></p> <p>A Negligible spalling, scaling or cracking. If the concrete surface is weathered, rough to the touch or holds moisture, it is still satisfactory but should be seal coated to prevent freeze / thaw damage.</p> <p>M Spalling, scaling, and open cracking present, but the immediate integrity or capacity of the channel is not threatened. Reinforcing steel may be exposed. Repairs / sealing is necessary to prevent additional damage during periods of thawing and freeze.</p> <p>U Surface deterioration or deep cracks present that result in an threaten the channel's integrity and capacity.</p>	Maintenance Deficiency	Enforcement
Concrete Tilting / Settlement	<p><b>n/a</b></p> <p>A There are no significant areas of tilting, sliding or settlement that would endanger the integrity of the project.</p> <p>M There are areas of tilting, sliding or settlement (either active or inactive) that need to be repaired. The integrity and capacity of the channel is not affected.</p> <p>U There are areas of tilting, sliding or settlement (either active or inactive) that threaten the channel's integrity and capacity.</p>	Maintenance Deficiency	Design & System Obsolescence
Encroachments	<p><b>n/a</b></p> <p>A No trash, debris, excavation, structures, or other obstructions present within the easement. Encroachments which do not diminish proper functioning of the project have been previously approved by the Central Valley Flood Protection Board.</p> <p>M Trash, debris, excavations, structures, or other obstructions present, or inappropriate activities that will not inhibit project operations and maintenance or emergency operations were observed. Encroachments have been approved by the Central Valley Flood Protection Board.</p> <p>U Trash, debris, excavation, structures, or other obstructions present, or inappropriate activities that will inhibit project operations and maintenance or emergency operation were observed.</p>	Maintenance Deficiency	Enforcement
Erosion / Bank Caving	<p><b>n/a</b></p> <p>A No erosion encroaching into the channel bank that would endanger the capacity of the channel was observed.</p> <p>M Erosion encroaching into the channel bank less than 1 foot into the designed grade or cross section was observed.</p> <p>U Erosion encroaching into the channel bank more than 1 foot into the designed grade or cross section was observed. Corrective actions required to stop or slow erosion.</p>	Maintenance Deficiency	Design & System Obsolescence
Gates	<p><b>n/a</b></p> <p>A Gates open and close easily with minimal leakage. Gates show no corrosion damage and have been maintained.</p>	Maintenance Deficiency	Enforcement

**Table G-1: Levee Inspection Rating Categories**  
**Rivers, Channels & Designated Floodways (cont)**

Item	Comment Code & Ratings	Default Issue Type	Alternate Issue Type
Gates (cont)	<p><b>n/a</b></p> <p>M Gates will not fully open or close because of obstructions that can be easily removed or have corrosion damage. Gate operators may need lubrication or other maintenance but do not threaten the integrity of capacity of the channel.</p> <p>U Gate is missing, has been damaged or has deteriorated and needs repair. Gate will not prevent flow from the channel toward the landside.</p>	Maintenance Deficiency	Enforcement
Revetments	<p><b>n/a</b></p> <p>A Existing riprap protection is properly maintained and is undamaged. Riprap clearly visible.</p> <p>M Riprap displacement or scouring activity that could undercut banks, erode embankments, or restrict desired flow was observed, but the integrity and capacity of the channel is not affected. Unwanted vegetation must be cleared and sprayed with an appropriate herbicide.</p> <p>U Dense brush, trees, or grasses hide the rock protection, or meandering and/or scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Cavities may exist under the revetment.</p> <p>N There is no revetment at this location and is not needed.</p>	Maintenance Deficiency	Enforcement
Shoaling / Sedimentation	<p><b>n/a</b></p> <p>A No shoaling or sedimentation present.</p> <p>M Non-aquatic grasses present on shoal. No trees or brush is present on shoal, and channel flow is not impeded.</p> <p>U Shoaling is well established, stabilized by trees, brush or other vegetation. Shoals are diverting flow to channel bank causing bank erosion and undercutting.</p>	Maintenance Deficiency	Maintenance Deficiency
Vegetation & Obstructions	<p><b>n/a</b></p> <p>A Minimal, scattered obstructions or vegetation. The flow is not impeded.</p> <p>M Log jams, snags, vegetation growth (such as cat tails, bull rushes, bushes or saplings) or other obstructions block approximately 25% of the capacity.</p> <p>U Log jams, snags, vegetation growth (such as cat tails, bull rushes, bushes or saplings) or other obstructions block approximately 50% of the capacity.</p>	Maintenance Deficiency	Maintenance Deficiency