

Flood Control Project Maintenance
2010 Structure Summary Report
Overall Unit and Item Ratings

Reclamation District No. 2096 Wetherbee Lake

Wetherbee Lake Pumping Plant & Navigation Gate

| Overall Unit Rating | Rated Item | Item Rating |
|---------------------|---------------------------------------|-------------|
| A | Operating Log | A |
| | Operation & Maintenance Manual | A |
| | Plant Building | A |
| | Communications | A |
| | Safety | A |
| | Cranes | N |
| | Pumps | A |
| | Power | A |
| | Motors, Engines, Fans & Gear Reducers | A |
| | Pump Control Systems | A |
| | Sumps/Wet Well | A |
| | Trash Racks | M |
| | Trash Rakes | N |
| | Sluice / Slide Gates | N |
| | Electric Gate Operators | A |
| | Manual Gate Operators | A |
| | Other Metallic Items | A |
| | Flap Gates | A |
| | Closure Structures | A |
| | Security Fencing | A |
| | Intake and Discharge Pipes | A |
| | Pressurized Pipe | A |

Flood Control Project Maintenance**Unit Cover Sheet****2010 Pumping Plant Inspection Results****Reclamation District No. 2096 Wetherbee Lake**

| Pumping Plant | |
|--|--|
| Wetherbee Lake Pumping Plant & Navigation Gate | |

| | |
|----------------------|-------------------------|
| Pumping Plant Rating | A |
| Date of Inspection | 7/30/2010 |
| DWR Inspector | John Paasch |
| Accompanied By | Chuck McCabe RD 2096 |

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Structure 2010

Wetherbee Lake

| Structure | Structure Length | Inspection Start/End | Inspector |
|--|------------------|--------------------------|-------------|
| Wetherbee Lake Pumping Plant & Navigation Gate | | 07/30/2010 07/30/2010 | John Paasch |

| LMR No. | Levee Mile | | Category | Item | Location * | Rating ** | Action/Comment | GPS Latitude/Longitude | | Photo | Issue No. |
|---------|------------|------|---------------|---------------------------------------|------------|-----------|---|------------------------------|------------------------------|-------|-----------|
| | Start | End | | | | | | Start | End | | |
| 1 | 0.00 | 0.00 | Pump Stations | Operating Log | | A | Inspector Comments: Operation log located onsite in a metal shed. This item was identified with an Unacceptable rating in the USACE PI report for the San Joaquin River East Levee System (WTHR_2009_a_0013). | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | Y | 1 |
| 2 | 0.00 | 0.00 | Pump Stations | Operation & Maintenance Manual | | A | Inspector Comments: This item was identified with an Unacceptable rating in the USACE PI report for the San Joaquin River East Levee System (WTHR_2009_a_0014). O&M manual containing equipment numbers and procedures was present onsite during 12/2/10 reinspection. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | Y | 2 |
| 3 | 0.00 | 0.00 | Pump Stations | Plant Building | | A | Inspector Comments: Electronics and controls are housed in cabinets. Facilities were repainted late last summer. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | Y | 3 |
| 4 | 0.00 | 0.00 | Pump Stations | Communications | | A | Item inspected visually only. Item was not operated during the inspection. Inspector Comments: Operators have cellular and radio communication. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | | 4 |
| 5 | 0.00 | 0.00 | Pump Stations | Safety | | A | Inspector Comments: Bent guard railing needs repair but is firmly intact and does not pose a safety hazard. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | | 5 |
| 6 | 0.00 | 0.00 | Pump Stations | Cranes | | N | Inspector Comments: No cranes present at site. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | | 6 |
| 7 | 0.00 | 0.00 | Pump Stations | Pumps | | A | Inspector Comments: Pumps appear properly maintained and lubricated. Pumps last run June 2010. Pump 1 ran during inspection. Five minutes lag to begin pumping. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | | 7 |
| 8 | 0.00 | 0.00 | Pump Stations | Power | | A | Inspector Comments: No electrical deficiencies were observed. Placement and use of backup generators were considered. Backup generators can be brought in on emergency basis. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | | 8 |
| 9 | 0.00 | 0.00 | Pump Stations | Motors, Engines, Fans & Gear Reducers | | A | Item inspected visually only. Item was not operated during the inspection. Inspector Comments: Annual maintenance of motors done in June. Lack of Megger Testing resulted in an Unacceptable rating in the USACE PI (WTHR_2009_a-0025). Megger Testing was completed on 9/29/10 by Delta Pump Co. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | Y | 9 |
| 10 | 0.00 | 0.00 | Pump Stations | Pump Control Systems | | A | Inspector Comments: Automatic and manual controls are free of damage and appear to operate properly. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | | 10 |

| | | |
|--|--|--|
| * Location LS : Land Side WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated |
|--|--|--|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Structure 2010

Wetherbee Lake

| Structure | Structure Length | Inspection Start/End | Inspector |
|--|------------------|--------------------------|-------------|
| Wetherbee Lake Pumping Plant & Navigation Gate | | 07/30/2010 07/30/2010 | John Paasch |

| LMR No. | Levee Mile | | Category | Item | Location * | Rating ** | Action/Comment | GPS Latitude/Longitude | | Photo | Issue No. |
|---------|------------|------|---------------|----------------------------|------------|-----------|---|------------------------|---------------|-------|-----------|
| | Start | End | | | | | | Start | End | | |
| 11 | 0.00 | 0.00 | Pump Stations | Sumps/Wet Well | | A | Inspector Comments: Sedimentation in Weatherbee Lake could migrate to pump intake. | 37.773593 ° | 37.773593 ° | Y | 11 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 12 | 0.00 | 0.00 | Pump Stations | Trash Racks | | M | Inspector Comments: Piece of trash rack panel missing. | 37.773593 ° | 37.773593 ° | | 12 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 13 | 0.00 | 0.00 | Pump Stations | Trash Rakes | | N | Inspector Comments: Mechanical trash rakes are not present at this site. | 37.773593 ° | 37.773593 ° | | 13 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 14 | 0.00 | 0.00 | Pump Stations | Sluice / Slide Gates | | N | Inspector Comments: No slide gates present. | 37.773593 ° | 37.773593 ° | | 14 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 15 | 0.00 | 0.00 | Pump Stations | Electric Gate Operators | | A | Inspector Comments: This item was identified with an Unacceptable rating in the USACE PI report (WTHR_2009_a_0031 & WTHR_2009_a_0032). 12/2/10 reinspection and demonstration verifies repair by Green Electric. | 37.773593 ° | 37.773593 ° | Y | 15 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 16 | 0.00 | 0.00 | Pump Stations | Manual Gate Operators | | A | Item inspected visually only. Item was not operated during the inspection. Inspector Comments: Manual gate operators appear in good working condition. | 37.773593 ° | 37.773593 ° | | 16 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 17 | 0.00 | 0.00 | Pump Stations | Other Metallic Items | | A | Item inspected visually only. Item was not operated during the inspection. Inspector Comments: Facility painted end of summer 2009. | 37.773593 ° | 37.773593 ° | | 17 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 18 | 0.00 | 0.00 | Pump Stations | Flap Gates | | A | Inspector Comments: Reinsptection on 12/3/10. North flap gate hinge bolt was replaced. | 37.773593 ° | 37.773593 ° | Y | 18 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 19 | 0.00 | 0.00 | Pump Stations | Closure Structures | | A | Item inspected visually only. Item was not operated during the inspection. Inspector Comments: Radial arm gate acts as closure structure. It functions and appears to be in good working condition. | 37.773593 ° | 37.773593 ° | Y | 19 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 20 | 0.00 | 0.00 | Pump Stations | Security Fencing | | A | Inspector Comments: Fencing provides adequate protection against unauthorized access. Surveillance cameras are accessible from the internet. | 37.773593 ° | 37.773593 ° | | 20 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |
| 21 | 0.00 | 0.00 | Pump Stations | Intake and Discharge Pipes | | A | Item inspected visually only. Item was not operated during the inspection. Inspector Comments: This item was identified as Acceptable under Pump Stations (WTHR_2009_a_0027) and Unacceptable under Levee Embankment (no ID, Rated Item 11) in the USACE PI report . 12/2/10 visual reinspection verifies absence of leaks and major corrosion. | 37.773593 ° | 37.773593 ° | Y | 21 |
| | | | | | | | | -121.298442 ° | -121.298442 ° | | |

| | | |
|--|--|--|
| * Location LS : Land Side WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated |
|--|--|--|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Structure 2010

Wetherbee Lake

| Structure | Structure Length | Inspection Start/End | Inspector |
|--|------------------|--------------------------|-------------|
| Wetherbee Lake Pumping Plant & Navigation Gate | | 07/30/2010 07/30/2010 | John Paasch |

| LMR No. | Levee Mile | | Category | Item | Location * | Rating ** | Action/Comment | GPS Latitude/Longitude | | Photo | Issue No. |
|---------|------------|------|---------------|------------------|------------|-----------|--|------------------------------|------------------------------|-------|-----------|
| | Start | End | | | | | | Start | End | | |
| 22 | 0.00 | 0.00 | Pump Stations | Pressurized Pipe | | A | Item inspected visually only. Item was not operated during the inspection. Inspector Comments: No evidence of erosion or leakage of pressurized pipe was found. | 37.773593 ° -121.298442 ° | 37.773593 ° -121.298442 ° | | 22 |

| | |
|---|---|
| <p>* Location</p> <p>LS : Land Side WS : Water Side CR : Crown</p> | <p>** Rating</p> <p>A : Acceptable M : Minimally Acceptable U : Unacceptable</p> <p>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p> |
|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Structure 2010

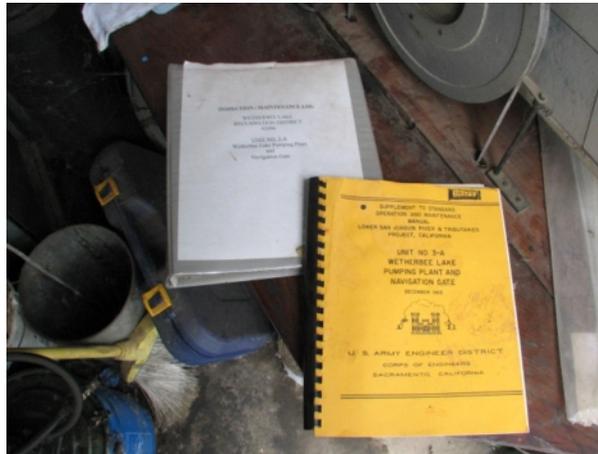
Wetherbee Lake

| Structure | Structure Length | Inspection Start/End | Inspector |
|--|------------------|--------------------------|-------------|
| Wetherbee Lake Pumping Plant & Navigation Gate | | 07/30/2010 07/30/2010 | John Paasch |

| | |
|--|---------------|
| Levee Mile Report Line | 1 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Operating Log |
| Operation log in metal shed with surveillance and instrumentation equipment. | |
| jpaasch_t_20100730_045.jpg | |



| | |
|--|--------------------------------|
| Levee Mile Report Line | 2 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Operation & Maintenance Manual |
| Supplemental Operation and Maintenance manual stored onsite. | |
| jpaasch_t_20101206_053.jpg | |



| | |
|---|----------------|
| Levee Mile Report Line | 3 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Plant Building |
| 2010 Wetherbee Lake Pumping Plant & Navigation Gate | |
| jpaasch_t_20100730_046.jpg | |



| | | |
|---|---|---|
| <p>* Location</p> <p>LS : Land Side WS : Water Side CR : Crown</p> | <p>** Rating</p> <p>A : Acceptable M : Minimally Acceptable U : Unacceptable</p> | <p>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p> |
|---|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Structure 2010

Wetherbee Lake

| Structure | Structure Length | Inspection Start/End | Inspector |
|--|------------------|--------------------------|-------------|
| Wetherbee Lake Pumping Plant & Navigation Gate | | 07/30/2010 07/30/2010 | John Paasch |

| | |
|---|----------------|
| Levee Mile Report Line | 3 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Plant Building |
| Pump plant and navigation gate facility from north. | |
| jpaasch_t_20100730_052.jpg | |



| | |
|---|---------------------------------------|
| Levee Mile Report Line | 9 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Motors, Engines, Fans & Gear Reducers |
| Delta Pump Co. completed Megger Testing of all pump motor terminals and load wires. Letter from KSN contains results. | |
| jpaasch_t_20101207_059.jpg | |



| | |
|----------------------------|----------------|
| Levee Mile Report Line | 11 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Sumps/Wet Well |
| Sump for the three pumps. | |
| jpaasch_t_20100730_047.jpg | |



| | | |
|---|---|---|
| <p>* Location</p> <p>LS : Land Side WS : Water Side CR : Crown</p> | <p>** Rating</p> <p>A : Acceptable M : Minimally Acceptable U : Unacceptable</p> | <p>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p> |
|---|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Structure 2010

Wetherbee Lake

| Structure | Structure Length | Inspection Start/End | Inspector |
|--|------------------|--------------------------|-------------|
| Wetherbee Lake Pumping Plant & Navigation Gate | | 07/30/2010 07/30/2010 | John Paasch |

| | |
|---|-------------------------|
| Levee Mile Report Line | 15 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Electric Gate Operators |
| <p>This panel was identified in the USACE PI report as not functional (WTHR_2009_a_0031). Electronic gate controls were repaired and function properly as demonstrated during 12/2/10 reinspection.</p> | |
| <p>jpaasch_t_20101206_054.jpg</p> | |



| | |
|---|-------------------------|
| Levee Mile Report Line | 15 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Electric Gate Operators |
| <p>Junction box and wiring for gate controls was identified in the USACE PI report as needing repair (WTHR_2009_a_0032). Reinspection on 12/2/10 verifies repairs have been made.</p> | |
| <p>jpaasch_t_20101207_058.jpg</p> | |



| | |
|---|---------------|
| Levee Mile Report Line | 18 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Flap Gates |
| <p>Outfall structure of pumping plant. Three flap gates on San Joaquin River.</p> | |
| <p>jpaasch_t_20100730_048.jpg</p> | |



| | | |
|---|---|---|
| <p>* Location</p> <p>LS : Land Side WS : Water Side CR : Crown</p> | <p>** Rating</p> <p>A : Acceptable M : Minimally Acceptable U : Unacceptable</p> | <p>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p> |
|---|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Structure 2010

Wetherbee Lake

| Structure | Structure Length | Inspection Start/End | Inspector |
|--|------------------|--------------------------|-------------|
| Wetherbee Lake Pumping Plant & Navigation Gate | | 07/30/2010 07/30/2010 | John Paasch |

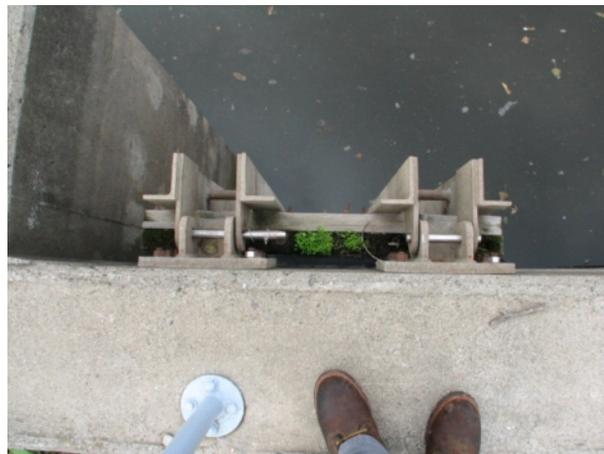
| | |
|--|---------------|
| Levee Mile Report Line | 18 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Flap Gates |
| Missing stainless steel hinge bolt for Pump 3 flap gate. | |
| jpaasch_t_20100730_049.jpg | |



| | |
|----------------------------------|---------------|
| Levee Mile Report Line | 18 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Flap Gates |
| Pump 1 outfall during operation. | |
| jpaasch_t_20100730_051.jpg | |



| | |
|---|---------------|
| Levee Mile Report Line | 18 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Flap Gates |
| Photo of replaced hinge bolt for flap gate taken 12/2/10. | |
| jpaasch_t_20101206_057.jpg | |



| | | |
|--|--|--|
| * Location LS : Land Side WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated |
|--|--|--|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Structure 2010

Wetherbee Lake

| Structure | Structure Length | Inspection Start/End | Inspector |
|--|------------------|--------------------------|-------------|
| Wetherbee Lake Pumping Plant & Navigation Gate | | 07/30/2010 07/30/2010 | John Paasch |

| | |
|---|--------------------|
| Levee Mile Report Line | 19 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Closure Structures |
| <p>Navigation channel closed by radial arm gate. The gate has electronic controls and manual turn wheels. Both appear functional.</p> | |
| <p>jpaasch_t_20100730_050.jpg</p> | |



| | |
|---|----------------------------|
| Levee Mile Report Line | 21 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Intake and Discharge Pipes |
| <p>Discharge pipes appear to be in good condition. No visual evidence of leaks or corrosion were observed. Rated Unacceptable in USACE PI report for Levee Embankment perhaps for lack of video inspection.</p> | |
| <p>jpaasch_t_20101206_055.jpg</p> | |



| | |
|---|----------------------------|
| Levee Mile Report Line | 21 |
| Start Levee Mile | 0.00 |
| End Levee Mile | 0.00 |
| Location | |
| Category | Pump Stations |
| Item | Intake and Discharge Pipes |
| <p>Photo taken during 12/2/10 reinspection of discharge pipe outfall.</p> | |
| <p>jpaasch_t_20101206_056.jpg</p> | |



| | | |
|---|---|---|
| <p>* Location LS : Land Side WS : Water Side CR : Crown</p> | <p>** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable</p> | <p>PO : Partially Obstructing CO : Completely Obstructing N : Not Inspected/Rated</p> |
|---|---|---|