



# Ironhouse Sanitary District BOARD OF DIRECTORS **STAFF REPORT**

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**DATE:** February 4, 2020  
**TO:** Members of the Board of Directors  
**FROM:** Tyson Zimmerman, Assistant General Manager  
**SUBJECT:** **General Manager and Staff Report**

## **Administration**

- Board meeting – January 7<sup>th</sup>
- RD 830 Board meeting – January 7<sup>th</sup>
- GM met with Board Members individually
- GM and AGM attended monthly Outreach meeting
- AGM attended the Bay Area Biosolids Coalition meeting
- AGM attended the Western Recycled Water Coalition meeting
- Administrative staff are preparing the Prop 218 Notice for Rates
- AGM and Board members attended the CASA Winter Conference

## **Engineering Division**

### ***Development Related Activities***

- Reviewed developer drawings including small developments and renovations
  - Bird Hospital
  - 3807 Main Street
  - Stonewood Unit 1A
  - 1964 Hamburg
  - City of Oakley CIP 218
  - Brookfield Homes
- Updated ISD plans and specifications for re-bid
- Prepared agendas for and attended two pre-bid meetings
- Assisted with Biosolids Master Plan consultant selection

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## ***General Engineering Support***

- Provided general engineering support services
- Assisted with SSMP updates

## **WRF Operations Division**

### ***Regulatory Compliance***

- Submitted the December 2019 NPDES, DMR, and WDR Monthly Monitoring Reports. See the attached Report Cover Letters.
- Submitted the 2019 Annual Land Management Report. See the attached Report Cover Letter.
- Submitted the 2019 Annual Operations Report. See the attached Report Cover Letter.
- Completed the January 2020 NPDES and DMR Permit Samples.
- Completed the January 2020 and Q1 2020 Biosolids Monitoring.
- Completed the January, Q1, Annual, and Priority Pollutants for 2020.
- Completed the Q1 2020 Groundwater Monitoring and Annual 2020 Extended Well Network Elevations.
- Completed the 2020 Annual Domestic Water Supply sampling.
- Received and reviewed the Compliance Inspection Report from the Regional Water Quality Control Board. See the attached Report Cover Letter.
- Signed and submitted the 2019 Agency-Verification Statement to Synagro's Central Valley Compost.
- Completed Annual Field Thermometer Calibrations.

### ***Operations, Process Control, and Preventative Maintenance***

- Continued effluent disposal via River Discharge Mode.
- Continued using NEXGEN to capture Work Order activities and job costs. See the attached December 2019 Work Order Cost Report.
- Working on Harmonic Compensators. Being told the unit is obsolete and no longer supported by Rittal. Working on quote for replacement unit and repair of existing units.
- Pressure washed Drum Screens 1 and 2.
- Cleaned helix area several times due to overflow from dumpster.
- Worked on drain line from Solids Building that was plugged with Polymer/Solids. Collections used the Jetter Truck to unplug.
- Updated blower logs for 2020.

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- Cleared Mechanical Screen 3 compactor.
- Cleared helix area compacter; it bridged and started to overflow.
- Assembled new WRF Documents file box for 2020.
- Packaged and shipped TVSS back to Eaton for warranty.
- Cleaned UV Channels 1 and 2.



**UV Channel 2**

- Replaced Area 50 TVSS.
- Complaint of Area 50 air tank condensation auto drain valve inoperable. Replaced with in-stock spare parts. Worked on getting quote for new unit and placed order.

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**Failed and replacement Auto Drain components**

- Worked with Pump Repair Services on yearly service of several pumps. Ordered replacement packing flange for UW Pump 1.



**Packing flange corroded in half on UW Pump 1**

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- Complaint of Grit Pump 2 tripping low pressure switch. Checked unit and found the mechanical seal is starting to leak seal water. Pump is going to need a rebuild. Working on quote for pump rebuild and mechanical seal.
- Obtained quotes as needed for boom lift rental. Filled out purchase request and obtained a PO#. Ordered boom lift and scheduled yearly crane inspection.
- Area 50 air dryer fault. Checked unit. Found air leak at one fitting. Repaired leak cleared fault. Fault has not come back yet.
- Found Alarm System battery low. Went to Ace and purchased new battery. Installed battery in alarm system.
- Polymer Pump 2 issue; will not operate remotely. Traced issue to failed HMI Control Card. Researched and completed purchase request. Ordered replacement and spare parts.



**Failed HMI Control Card**

- Had issues pressing solids. Cleaned Poly pumps and belts several times and cleaned dilution water screens at the pressure reducing valves.

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**Buildup on PRV Inlet Screen**

- Completed the BACC bid quantities survey for FY20/21.
- Found and replaced broken seam wire on Belt Press. Working on quotes for belt press belts. Acquired two quotes and passed it on to purchasing for completion.



**Broken Seam Wire on Belt Press Belt**

- Found steering ram on belt press 1 leaking. Working on quote for new ram and a rebuild kit. Completed sole source justification and purchase request.
- Working on renewal of Cisco Air Systems service contract.
- Researched and filled out sole source and purchase request for Mechanical Seal for Grit Pump 2.

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- Working with JSP on Mechanical #3 alarm issues. Found two thermostat alarms incorrectly wired.
- Modified Influent Pump Station set points to utilize the added capacity and shave peak flows.
- Re-scheduled dumpster pick-ups due to New Year's and MLK Jr. Holidays.
- Installed new dry contacts card in Mechanical Screens LCP UPS.
- Setup pump/hoses and drained the storm water pond.
- Replaced the failed Dumpster-Veyor limit switch.
- Placed ISD clothing and apparel order with Discovery Bay Designs.
- Ordered Steel Toed Rubber Boots.
- Replaced failed Power Module on the SCADA Systems UPS.
- Replaced the bolts that rotted out and reinstalled Aeration Basin 4 Mud Valve.
- Found a rotted out roll pin on Anoxic Basin 4 Mud Valve. Replaced pin with solid stainless steel bolt.
- Re-enabled the Mechanical Screens UPS, power fail, and thermostat alarms.
- Installed and programmed the Drum Screen 1 HMI.
- Changed Blower Pre-filters.
- Calibrated on-line Water Quality Analyzers.
- Replaced composite sampler tubing.
- Ordered and received chemical deliveries.

## **Safety/Training/Miscellaneous**

- Continued coordination of the 2019 Improvement Projects. See attached Construction Progress Report for December.
- Continued developing lock out tag out procedures in Smart SOP.
- Plant Supervisor started employment on January 2, 2020. Completed the District's New Employee Orientation Process.
- Continued site visits with Director Zirkle. IPS upgrades and control strategies.
- Employee remains on leave of absence due to non-workplace injury.
- Received update from Lincus Energy that the MBR and Blower System energy efficiency measures were approved by PG&E. Due to constricting timelines, process improvement efficiencies, and equipment life, the approved measures are cancelled for the time being.
- Reviewed and attended the Biosolids Master Plan Proposals meetings.

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- Scheduled site visit for the CWEA 2019 Plant of the Year with the CWEA Leadership and Development Committee Chairman.
- Annual hearing conservation testing scheduled and completed.
- Assisted Delta Diablo with Oral Panel Interviews.

## **Jersey Island Operations**

### **General**

- Mechanics are continuing to maintain and repair vehicles and equipment.
- Staff is repairing fencing around the island.
- Jersey Island purchased two new quads to replace older equipment.



**New Honda quad**

### **Cattle**

- Winter feeding of the cattle continues
- Seventy-one (71) Open and culled spring and two culled bulls sold at Turlock Livestock auction bring in \$52,869.20.
- Fall branding continues. Fall 3 herd had 194 cows with 185 calves which is a 95% born rate.



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Sorting calves from Fall 1 herd cows



Sorting calves from Fall 1 herd cows



Branding fall calves

## Hay

- Fields on the island and in town have been planted. New crops are beginning to sprout.
- Thirty-nine (39) bales of alfalfa were sold to Western Milling for \$6713.50 or \$215.00 per ton.

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**Mainland fields prepared for planting**



**Planting the mainland ground**



**Planting the mainland ground**

## **Levee**

- Staff improved access over the new splash berm at Jersey point for the USGS station.
- Levee inspection during King Tide on 1/10/2020 was done. The water and weather was calm. Everything looked good.
- New fig trees and walnut trees at 17 locations on the waterside of the island were removed before they could get established.
- Main East/West drain ditch is being cleaned by staff.
- Staff are rotating cattle to various parts of the levee for vegetation maintenance.

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**Access to USGS station**



**Removal of saplings from waterside**

## **Collections and Maintenance Division**

### ***Preventive Maintenance***

- D1 Lift Station: Annual inspection
- Bridgehead Lift Station: Annual inspection
- Monthly Generator Run-Test: Quail Valley, MPS, Emerson, and SL1
- Cypress Grove: Removed grease from the vacuum priming system
- CCTV: 9,596'
- Hydro flush: 9,596'

### ***Corrective Maintenance***

- T1 callout: Broken fastener caused the wet-well lid to lift creating a road hazard

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**Above: Broken hinge bracket is causing the south east corner of the lid to lift creating a road hazard**



**Above: Collections crew temporarily corrected the issue by securing the lid with bolts and backing plates, the lid is scheduled for replacement**

- Quail Valley Lift Station: Check valves were plugged with rags causing longer run times and loss of efficiency. Collections staff removed the inspection plate on both check valves and removed all obstructions
- Quail Valley Lift Station: Replaced failed uninterruptible power supply (UPS)
- Collections PLC (FEP1): Had to replace a failed PLC that controls Network 1 of our SCADA system 18 remote sites (lift stations)
- SL1 lift station: Trouble shooting to resolve vacuum priming issue staff found a bad O-ring causing a vacuum leak
- Ironwood lift station: Replaced failed uninterruptible power supply (UPS)
- G1 Lift Station: Check valves were plugged with rags causing longer run times and loss of efficiency. Collections staff removed the inspection plate on both check valves and removed all obstructions
- Rags: 20 pumps de-ragged

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## ***Inspections***

- Customer Service Request: Resident at 404 Clearwood Drive had a blocked lateral. The mainline was clear of any obstructions and was verified by closed circuit television (CCTV)
- Tract #9461: 6 lateral connections
- Customer Service Request: Standby personnel responded to AM/PM after hours for a blocked lateral. The business owner called a plumber to relieve the blockage
- Customer Service Request: 1865 Teresa Lane had a blocked lateral, homeowner called a plumber to relieve the blockage
- Lateral Inspection: 5090 Martin Lane
- Gilbert Ranch: Tested the generator connection for correct rotation, as well as any other issues that may be present
- USA's: 130

## ***Safety/Training/Regulatory Compliance***

- Asbestos Awareness / Handling: Target Solutions (Computerized training program offered by CSRMA)
- Confined Space Entry: Target Solutions
- Blood borne Pathogens: Target solutions

## ***Facilities***

- Collections/Admin: Building inspection was completed for December
- Admin building: Replaced a failed photocell that controls the exterior lighting
- Admin building: Removed debris from rain gutters and flushed downspouts
- CIWIS: No spill report was completed for December
- WRF: Hydro flushed the drain lines in the press building
- Vac Con Dumpsite: Cleaned the pad of all dried material and placed it into five (5) 20-yard bins.