MONTHLY OPERATIONS REPORT

for the: City of Ione

Castle Oaks and the Wastewater Treatment Facilities

Wastewater Services

August 2023

RE: AUGUST 2023 MONTHLY OPERATIONS REPORT

Dear Mrs. .Godney:

WaterStone Services LLC. Is pleased to present our monthly operations report detailing our operations and maintenance activities at your wastewater treatment facilities during the previous month. Our report addresses the following key areas of concern:

1. Permit Compliance
2. Plant Flows
3. Plant Loads
4. Plant Process and Performances
5. Maintenance and Repair
6. Process Chemicals
7. Solids Disposal
8. Safety

Should you have any questions or concerns regarding this report or any aspect of our operation, please don't hesitate to contact me.

Thank you for your time,

Sincerely,

Kathy Stone- Operations Manager

James Whitaker- Facility Manager

1.0 PERMIT COMPLIANCE

A. Discharge Permit Compliance- Tertiary WWTP

Central Valley Regional Water Quality Control Board permits the discharge from the facility for multiple parameters. All regulatory water quality monitoring requirements were met. The WWTP Facilities achieved compliance with parameters, as documented in TABLE 1.0 below. All permit required laboratory analysis performed by Alpha Laboratories.

TABLE 1.0 – DISCHARGE COMPLIANCE

PARAMETER	PERMIT LIMIT	FREQUENCY	AVERAGE	MONTHLY HIGH	MONTHLY LOW
Flow	1.2 MGD	Continuous	0.866	1.007	0.790
pH	6.0-9.0 mg/L	Weekly	7.6	7.7	7.2
Total Coliform	23/240mpn	Daily	<1.8	<1.8	<1.8
Electrical Conductivity	10/mg/l	Monthly	620	620	620
Chlorine	N/A	Daily	4.8	6.8	2.3
Nitrate	10 mg/L	Weekly	<0.2	<0.2	<0.2
Total Arsenic	mg/l	Monthly	0.012	0.012	0.012
Turbidity	10 NTU	Continuous	1.2	3.4	0.43
Biochemical Oxygen Demand	30 mg/L 45 Day Average	Weekly	<5.0	<5.0	<5.0

GREEN= WITHIN PERMIT LIMITS
YELLOW= WITHIN PERMIT LIMITS NEEDS ATTENTION
RED= EXCEEDED PERMIT LIMITS

Permit Compliance- Wastewater Treatment Plant Ponds

Central Valley Regional Water Quality Control Board provides a Permit for the Operation of the Pond Treatment System. All regulatory water quality monitoring requirements were met. The WWTP Facilities achieved compliance with parameters, as documented in TABLE 1.1

TABLE 1.1 – PERMIT COMPLIANCE

POND	PARAMETER	PERMIT LIMIT	FREQUENCY	AVERAGE	MONTHLY HIGH	MONTHLY LOW
1	Dissolved Oxygen	>1.0 X 3	Weekly	6.2	9.9	3.7
2	Dissolved Oxygen	>1.0 X 3	Weekly	5.2	7.2	3.7
3	Dissolved Oxygen	>1.0 X 3	Weekly	4.7	5.9	3.2
4	Dissolved Oxygen	>1.0 X 3	Weekly	5.9	8.9	3.6
5	Dissolved Oxygen	>1.0 X 3	Weekly	4.9	5.8	3.5
6&7	EMPTY	>1.0 X 3	Weekly	N/A	N/A	N/A
POND	PARAMETER	PERMIT LIMIT	FREQUENCY	AVERAGE	MONTHLY HIGH	MONTHLY LOW
1	pH	6.0-9.0	Weekly	7.0	7.2	6.5
2	pH	6.0-9.0	Weekly	6.6	7.1	6.0
3	pH	6.0-9.0	Weekly	6.4	6.9	6.2
4	pH	6.0-9.0	Weekly	6.4	7.0	6.2
5	pH	6.0-9.0	Weekly	6.6	7.0	6.3
6&7	EMPTY	6.0-9.0	Weekly	N/A	N/A	N/A
POND	PARAMETER	PERMIT LIMIT	FREQUENCY	AVERAGE	MONTHLY HIGH	MONTHLY LOW
1	Freeboard	2.0	Weekly	2.0	2.0	2.0
2	Freeboard	2.0	Weekly	2.0	2.0	2.0
3	Freeboard	2.0	Weekly	2.0	2.0	2.0
4	Freeboard	2.0	Weekly	2.0	2.0	2.0
5	Freeboard	2.0	Weekly	2.0	2.0	2.0
6&7	EMPTY	2.0	Weekly	N/A	N/A	N/A
POND	PARAMETER	PERMIT LIMIT	FREQUENCY	AVERAGE	MONTHLY HIGH	MONTHLY LOW
1	Berm Condition	Visual	Weekly	OK	OK	OK
2	Berm Condition	Visual	Weekly	OK	OK	OK
3	Berm Condition	Visual	Weekly	OK	OK	OK
4	Berm Condition	Visual	Weekly	OK	OK	OK
5	Berm Condition	Visual	Weekly	OK	OK	OK
6&7	EMPTY	Visual	Weekly	N/A	N/A	N/A
POND	PARAMETER	PERMIT LIMIT	FREQUENCY	AVERAGE	MONTHLY HIGH	MONTHLY LOW
1	Seepage/Odor	Visual	Weekly	OK	OK	OK
2	Seepage/Odor	Visual	Weekly	OK	OK	OK
3	Seepage/Odor	Visual	Weekly	OK	OK	OK
4	Seepage/Odor	Visual	Weekly	OK	OK	OK
5	Seepage/Odor	Visual	Weekly	OK	OK	OK
6&7	EMPTY	Visual	Weekly	N/A	N/A	N/A

2. PLANT FLOWS

Effluent and Influent Flow

The total Influent flow of 27,388,000 gallons of wastewater has been recorded for the month of August. The average daily Influent flow for the month was 883,000 GPD. A maximum daily flow of 1,0260,000 gallons on August 4TH. A minimum daily flow of 806,000 gallons on August 18TH.

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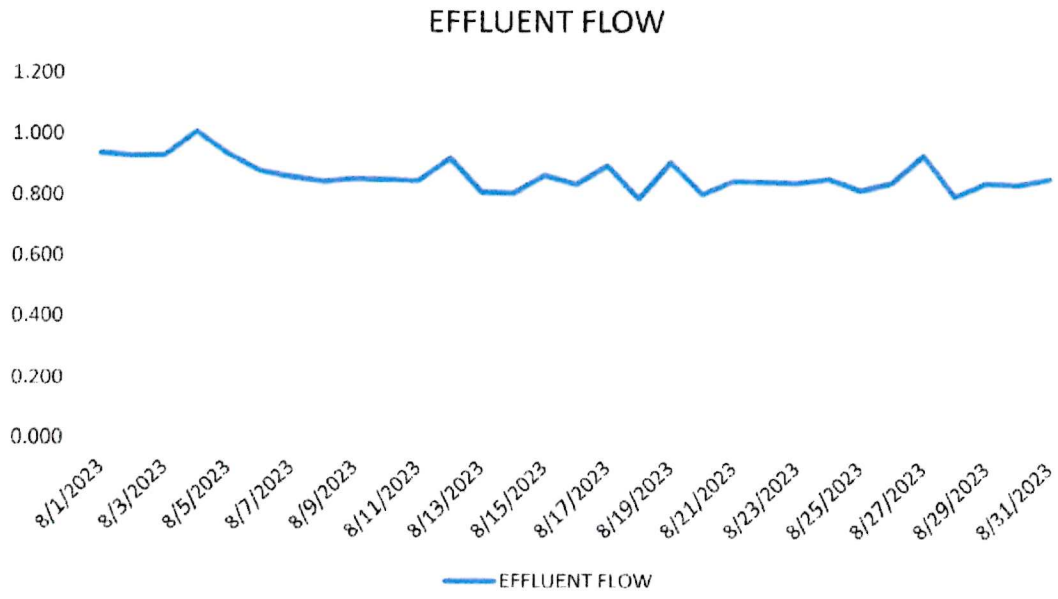
The total Effluent flow of 26,851,000 gallons of wastewater has been discharged for the month of August. The average daily effluent flow for the month 866,000 GPD. A maximum daily flow of 1,007,000 gallons on August 4TH. A minimum daily flow of 790,000 gallons on August. 18TH.

Graph 3.0 below trends the Effluent flow for the month.



3.0 PLANT LOADS

The plant loading consists of domestic wastewater.

4.0 PLANT PROCESSES AND PERFORMANCE

A. Collection System

No leaks or spills. Hot spots and Edgebrook lift stations serviced by ABC on 8/30/2023.

- Hydro vacuumed problem areas. Found problems on:
- Manhole located at the corner of Heath & Roger, there was root intrusion inside manhole at lateral connection, removed.
- 700 Heath St. needs replacement manhole over lid.
- 700 Nuner St manhole lid under asphalt, unable to access.
- 416 Foothill St. Hydro jetted from downstream manhole upstream. Hose was stuck, removed hose from line. Recommend camera inspection. Unable to clean entire line.
- Manhole # 3669 on Jackson St & Mills hydro jetted and brought back what appears to be bondo dust from auto body shop.
- Cleaned from downtown City Hall manhole to Marlette.
- Cleaned Foothill down to Highway.
- Cleaned manhole located in front of elementary school up to Highway towards Foothill.
- Cleaned Depot St.
- Cleaned Raymond, removed large amount of debris and paper from manhole 435 Raymond St. Cleaned all of lines on Raymond down to Shell Gas Station

- **Total Footage cleaned 8,944 feet**

B. *Influent Headworks*

The influent flow meter needs repair. Filter screen cleaned daily. The high-level alarm is tested daily. Shape inspected and repaired one of the influent pumps at the wastewater treatment plant. Shape took the other pump to their shop for repair. The repair will be completed in September.

C. Aeration

All pond aerators working for the month of August.

D. Castle Oaks Golf Course

Zone 2 and Zone 4 were utilized on the days the spray field was operated. The effluent is applied evenly.

E. Farmer's Irrigation

Irrigation fields were operated 12 out of 31 days of the month of August.

5.0 MAINTENANCE AND REPAIR

Maintenance and repair is a critical component of the overall operations of the wastewater treatment facilities. Waterstone Services is working closely with the City of Ione maintenance staff to assure that critical tasks are identified and corrected in a timely manner.

The following critical tasks completed this month:

- ADDED OIL AND GREASE TO ALL BLOWERS
- CHECKED EYE WASH STATIONS
- CHECKED FIRE EXTINGUISHERS
- SEWER LINE CLEANING
- INFLUENT PUMP AT WASTEWATER FACILITY SERVICED
- STAIRS PAINTED AND LABELED WITH CAUTION SIGNS
- SAFETY SIGNAGE POSTED AT BOTH FACILITIES
- SENT SLUDGE TO DRYING BED
- CLEANED UP ANY SLUDGE OVERFLOW
- ALL MONTHLY SAMPLES COMPLETED
- CALIBRATION OF METERS AND PROBES, AND OTHER QA/QC TASKS
- CREATED, IMPLEMENTED AND UPDATED SOP MANUALS

ITEMS REQUIRING CLIENT APPROVAL

ITEM	CRITICALITY	STATUS	COMPLETION DATE
EFFLUENT PUMPS	HIGH	APPROVED	N/A
CHEMICAL TANK INSTALL	HIGH	APPROVED	N/A
TURBIDITY METER/PROBE	HIGH	APPROVED	9/5/2023
CAM LOCKS	MEDIUM	RESEARCHING	N/A
SOLIDS HANDLING	HIGH	RESEARCHING OPTIONS	N/A

6.0 PROCESS CHEMICALS

The process chemical inventory (chlorine, polymer) are the bulk of chemicals used at the plant. We are utilizing tracking sheets for daily operator use to assure that dosage rates for all process chemicals are optimized. All chemicals used are being tracked on a daily basis. Awaiting chemical tank installation

7.0 SOLIDS DISPOSAL

Sludge is separated from water and deposited in the solids sludge drying bed.

8.0 SAFETY

Safety of the Waterstone Services staff, and the facility itself is a critical concern. Safety meetings topics for the month of August included: Slips, Trips & Falls and Hazard Identification. We are pleased to report that there were no workplace accidents or injuries in the past month

AUGUST 2023 Monthly Monitoring Report

Castle Oaks Golf Course Tertiary Treatment Plant
WDRs Order No. R5-1993-0240
WDID: 5B030109001

Influent Flow Monitoring			
Date	CDCR Flow	ARSA Flow	Combined Influent
Units	MGD	MGD	MGD
Frequency	Continuous	Continuous	Continuous
Sample Type	Recorder	Recorder	Recorder
Limit, Average (Maximum)	N/A	N/A	N/A
8/1/2023		0.954	0.954
8/2/2023		0.946	0.946
8/3/2023		0.946	0.946
8/4/2023		1.026	1.026
8/5/2023		0.952	0.952
8/6/2023		0.895	0.895
8/7/2023		0.876	0.876
8/8/2023		0.861	0.861
8/9/2023		0.871	0.871
8/10/2023		0.868	0.868
8/11/2023		0.865	0.865
8/12/2023		0.941	0.941
8/13/2023		0.828	0.828
8/14/2023		0.824	0.824
8/15/2023		0.883	0.883
8/16/2023		0.853	0.853
8/17/2023		0.916	0.916
8/18/2023		0.806	0.806
8/19/2023		0.926	0.926
8/20/2023		0.823	0.823
8/21/2023		0.866	0.866
8/22/2023		0.863	0.863
8/23/2023		0.862	0.862
8/24/2023		0.874	0.874
8/25/2023		0.837	0.837
8/26/2023		0.861	0.861
8/27/2023		0.954	0.954
8/28/2023		0.817	0.817
8/29/2023		0.862	0.862
8/30/2023		0.856	0.856
8/31/2023		0.876	0.876
Minimum	0	0.806	0.806
Maximum	0	1.026	1.026
Average	#DIV/0!	0.883	0.883
Count	0	31	31
Total	0	27.388	27.388

Effluent Monitoring										
Date	Daily Flow	Turbidity (Filter Effluent)	Chlorine	Total Coliform	BOD5 @ 20°C	pH	Nitrate (as N)	Total Arsenic	Electrical Conductivity
Units	MGD	NTU	mg/L	MPN/100 mL	mg/L	SU	mg/L	mg/L	umhos/cm
Frequency	Continuous	Continuous	Daily	Daily	Weekly	Weekly	Weekly	Monthly	Monthly
Sample Type	Recorder	Calculated (4-hr average)	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Limit, Average (Maximum)	N/A	10	N/A	23 (240)	30 (45)	6.0 - 9.0	10	N/A	10
8/1/2023	0.938	0.98	6.1	<1.8					
8/2/2023	0.929	0.86	5.1	<1.8	ND	7.2	ND	0.012	620
8/3/2023	0.931	0.98	4.3	<1.8					
8/4/2023	1.007	0.81	4.4	<1.8					
8/5/2023	0.936	0.83	4.5	<1.8					
8/6/2023	0.881	0.83	4.5	<1.8					
8/7/2023	0.860	1.42	2.3	<1.8					
8/8/2023	0.845	3.37	4.3	<1.8					
8/9/2023	0.854	2.45	4.0	<1.8	ND	7.7	ND		
8/10/2023	0.852	2.16	6.3	<1.8					
8/11/2023	0.849	1.87	4.3	<1.8					
8/12/2023	0.923	2.11	5.8	<1.8					
8/13/2023	0.812	1.69	5.2	<1.8					
8/14/2023	0.809	0.57	5.7	<1.8					
8/15/2023	0.866	1.08	6.8	<1.8					
8/16/2023	0.837	0.48	5.1	<1.8	ND	7.7	ND		
8/17/2023	0.898	0.74	3.5	<1.8					
8/18/2023	0.790	0.50	3.9	<1.8					
8/19/2023	0.909	0.43	5.2	<1.8					
8/20/2023	0.805	0.46	6.7	<1.8					
8/21/2023	0.849	0.43	4.9	<1.8					
8/22/2023	0.845	0.52	4.4	<1.8					
8/23/2023	0.842	1.29	5.1	<1.8	ND	7.7	ND		
8/24/2023	0.856	0.98	4.0	<1.8					
8/25/2023	0.819	1.10	4.2	<1.8					
8/26/2023	0.842	1.18	3.8	<1.8					
8/27/2023	0.933	1.22	3.6	<1.8					
8/28/2023	0.798	1.35	5.3	<1.8					
8/29/2023	0.843	1.41	5.0	<1.8					
8/30/2023	0.836	1.65	5.6	<1.8	ND	7.6	ND		
8/31/2023	0.856	1.48	5.4	<1.8					
Minimum	0.790	0.43	2.3	<1.8	<5.0	7.2	<0.2	0.012	620
Maximum	1.007	3.37	6.8	46	<5.0	7.7	<0.2	0.012	620
Average	0.866	1.20	4.8	<1.8	<5.0	7.6	<0.2	0.012	620
Count	31	31	31	31	5	5	5	1	1
Total	26.851								

WATERSTONE

TRAINING SHEET

Topic: Slips, Trips, Falls **Date:** 08/07/2023

Medium	
Video	
CD/DVD	
Hands On	
Equipment	
Movies	
PowerPoint Presentation	
Written Material Hand out from OSHA website	
TEST	

ATTENDEE NAMES

Print Last Name	Print First Name	Signature
Dennedy	Bonnie	
WHITAKER	James	

Training by: _____ **Affiliation or Position:** _____

Date completed: _____ **Facility Dept. #** _____

Time In: 0800 **Time Out:** 0830

WATERSTONE

TRAINING SHEET

Topic: Hazard Identification Date: 08/25/2023

Medium	
Video	
CD/DVD	
Hands On	
Equipment	
Movies	
PowerPoint Presentation	
Written Material on-line	
TEST	

ATTENDEE NAMES

Print Last Name	Print First Name	Signature
Dennedy	Bonnie	BCD
WHITAKER	JAMES	Jm Whitaker

Training by: _____ **Affiliation or Position:** _____

Date completed: _____ **Facility Dept. #** _____

Time In: 0745 **Time Out:** 0852