CITY OF
JOHN DAY

CITY COUNCIL MEETING AGENDA
Tuesday November 18, 2025
EXECUTIVE SESSION: 6:00 p.m.
REGULAR MEETING: 6:30 pm
John Day Fire Station
316 S Canyon Blvd, John Day, OR 97845
(541)575-0028 www.cityofjohnday.com

This meeting is open to the public. This agenda includes a list of the principal subjects anticipated to be considered at the meeting. However, the agenda does not limit the ability of the Council to consider additional subjects. Meetings may be canceled without notice. Zoom Meeting participants should use the "raise your hand" feature during these times to alert the moderator that they would like to speak.

Join Zoom Meeting
City of John Day is inviting you to a scheduled Zoom meeting.
https://zoom.us/j/95867942253?pwd=dHE5c3djSEx4OFBuZndPQU5HMGN3QT09
Meeting ID: 958 6794 2253
Passcode: 776959

Executive Session: 6:00 p.m.
Representatives of the news media and designated individuals are permitted to attend the executive sessions. All other members of the audience are asked to leave the room. Representatives of the news media are specifically directed not to report on any deliberations held during the executive sessions, except to state the general subject of the executive sessions as previously announced. No decisions will be made in the executive session.

a. ORS 192.660 2 (f); To consider information or records that are exempt by law from public inspection.

Call to Order: Regular John Day Council Meeting 6:30 pm.
1.Call John Day City Council Meeting to Order
2. Pledge of Allegiance
3. Roll Call
4. Amend or Accept Regular Agenda

5. Public Comments *(Please Limit to 3 Minutes)*
Public Comments are an opportunity to present information or speak on an issue that is not on the agenda. Comments are limited to 3 minutes for each person. Visitors may state their comments and should not expect the council to engage in back and forth dialogue regarding the comment, council may either choose to add it to a follow up meeting or direct City Manager to follow up with the speaker.

6. Consent Agenda

All matters listed within the Consent Agenda have been distributed to every member of the City Council for reading and study, are considered routine, and will be enacted by one motion of the Council. If separate discussion is desired, that item may be removed from the Consent Agenda and placed on the Regular Agenda by request.

   a. AP through 11-3-15
   b. Minutes of CC Mtg 10-28-25

7. Timber Truckers Light Parade Community Grant Application; request for $1500.00.

8. Ordinance No 25-06; An Ordinance adding a new Section 3 to Title 10 Chapter 2 pertaining to Minors and Curfew.

9. Wastewater Treatment Plant update; Keller & Associates – Jim Pex

   a. Approve Notice to Award contract in the amount of 1,544,160.00 to Aqua-Aerobic Systems, Inc for the pre-purchase of the Sequencing Batch Reactor Equipment and scope of work described in the bid dated October 15, 2025.

10. Project and grant update; Nick Ducote; Ducote Consulting

   a. Approval of RC0024 Loan Agreement WWTP; $546,926.00

11. Resolution 25-11; A Resolution of the City of John Day adopting water and sewer service fee increases effective January 2026 first billing.

12. Finance Update: Rob Gaslin CPA, Gaslin Accounting LLC

Other Business:

13. City Manager Comments:

14. Mayor and Council Comments:

15. Adjournment: Next Regular Meeting: December 3 (Strategic Plan & Council Rules and Procedures Workshop); Dec 9 regular City Council meeting

Report Criteria:
Report type: Invoice detail
Check.Type = {<>} "Adjustment" {AND} {<>} "EFT"

Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice GL Account	Invoice Amount	Check Amount
ACS - ADVANCED CONTROL SYSTEMS							
11/03/2025	760467	1013	ACS - ADVANCED CONTROL SYSTEM	41038	03-000-63450	415.00	415.00
11/03/2025	760467	1013	ACS - ADVANCED CONTROL SYSTEM	41271	02-000-62900	3,465.44	3,465.44
Total 760467:							3,880.44
AirMed Care Network							
11/03/2025	760468	1020	AirMed Care Network	5277/5521 102	01-000-61250	92.00	92.00
Total 760468:							92.00
ASHLEY STEVICK							
~~11/03/2025~~	~~760469~~	1036	ASHLEY STEVICK VOIDED	W/S REFUND	03-000-20130	.00	.00
Total 760469:							.00
11/03/2025	760488	1036	ASHLEY STEVICK	W/S REIMB O	03-000-20130	100.00	100.00
Total 760488:							100.00
BOX R WATER ANALYSIS							
11/03/2025	760470	1062	BOX R WATER ANALYSIS	X064133	02-000-64100	51.00	51.00
11/03/2025	760470	1062	BOX R WATER ANALYSIS	X064134	02-000-64100	51.00	51.00
Total 760470:							102.00
BRENDA MOSIER							
11/03/2025	760471	17795	BRENDA MOSIER	W/S REFUND	03-000-20130	45.21	45.21
Total 760471:							45.21
BRIDGET PILGREEN							
11/03/2025	760472	17820	BRIDGET PILGREEN	W/REFUND B	03-000-20130	26.90	26.90
Total 760472:							26.90
CIVICPLUS LLC							
11/03/2025	760473	1108	CIVICPLUS LLC	350331	06-000-64000	1,354.47	1,354.47
Total 760473:							1,354.47
DUCOTE CONSULTING, LLC							
11/03/2025	760474	1163	DUCOTE CONSULTING, LLC	2599	03-000-66230	1,187.50	1,187.50
Total 760474:							1,187.50
Grant County Assessor/Tax Collector							
11/03/2025	760475	17785	Grant County Assessor/Tax Collector	PROPTAX-PB	01-000-63460	2,013.84	2,013.84
Total 760475:							2,013.84
GRANT COUNTY HEALTH DEPT							
11/03/2025	760476	17585	GRANT COUNTY HEALTH DEPT	334145220	03-000-63650	285.77	285.77

Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice GL Account	Invoice Amount	Check Amount
Total 760476:							285.77
GRANT ESD							
11/03/2025	760477	1219	GRANT ESD	2526073	03-000-64798	222.51	222.51
Total 760477:							222.51
JOHN DAY FIREFIGHTERS ASSOC							
11/03/2025	760478	1276	JOHN DAY FIREFIGHTERS ASSOC	JDFF-OCT25	01-050-62950	466.00	466.00
Total 760478:							466.00
LANE COUNCIL OF GOVERNMENTS							
11/03/2025	760479	1314	LANE COUNCIL OF GOVERNMENTS	99840	10-000-63825	6,131.53	6,131.53
Total 760479:							6,131.53
LIFE FLIGHT NETWORK							
11/03/2025	760480	1325	LIFE FLIGHT NETWORK	0468041	01-000-61250	75.00	75.00
Total 760480:							75.00
LM THOEMKE							
11/03/2025	760481	17810	LM THOEMKE	W/S REFUND	03-000-20130	8.09	8.09
Total 760481:							8.09
MADISON WHITMORE							
11/03/2025	760482	1647	MADISON WHITMORE	W/S REFUND	03-000-20130	96.67	96.67
Total 760482:							96.67
QUILL CORPORATION							
11/03/2025	760483	1432	QUILL CORPORATION	46193511	01-000-63800	36.70	36.70
Total 760483:							36.70
TODD LOYD							
11/03/2025	760484	17760	TODD LOYD	2025BOOT-TL	02-000-61250	162.00	162.00
Total 760484:							162.00
TOMMY SKIENS TRUST							
11/03/2025	760485	17805	TOMMY SKIENS TRUST	W/S REFUND	03-000-20130	143.74	143.74
Total 760485:							143.74
VERIZON							
11/03/2025	760486	1538	VERIZON	6125591617	02-000-64798	374.18	374.18
Total 760486:							374.18
VISA							
11/03/2025	760487	1540	VISA	VISA0548-OC	01-050-64160	370.90	370.90
11/03/2025	760487	1540	VISA	VISA2957-0C	01-000-63500	2,937.09	2,937.09

Check Issue Date	Check Number	Vendor Number	Payee	Invoice Number	Invoice GL Account	Invoice Amount	Check Amount
Total 760487:							3,307.99
Grand Totals:							20,112.54

Summary by General Ledger Account Number

GL Account	Debit	Credit	Proof
01-000-20000	.00	5,431.98-	5,431.98-
01-000-61250	167.00	.00	167.00
01-000-63460	2,013.84	.00	2,013.84
01-000-63500	1,489.10	.00	1,489.10
01-000-63800	100.68	.00	100.68
01-000-64000	338.62	.00	338.62
01-000-64798	164.45	.00	164.45
01-050-62950	466.00	.00	466.00
01-050-64000	169.30	.00	169.30
01-050-64160	370.90	.00	370.90
01-050-64798	152.09	.00	152.09
02-000-20000	40.00	6,133.47-	6,093.47-
02-000-20130	208.25	40.00-	168.25
02-000-61250	162.00	.00	162.00
02-000-62900	3,465.44	.00	3,465.44
02-000-63825	207.50	.00	207.50
02-000-64000	338.62	.00	338.62
02-000-64100	102.00	.00	102.00
02-000-64260	1,384.01	.00	1,384.01
02-000-64798	265.65	.00	265.65
03-000-20000	60.00	2,346.25-	2,286.25-
03-000-20130	312.36	60.00-	252.36
03-000-63450	207.50	.00	207.50
03-000-63500	338.62	.00	338.62
03-000-63650	285.77	.00	285.77
03-000-64798	14.50	.00	14.50
03-000-66230	1,187.50	.00	1,187.50
06-000-20000	.00	169.31-	169.31-
06-000-64000	169.31	.00	169.31
10-000-20000	.00	6,131.53-	6,131.53-
10-000-63825	6,131.53	.00	6,131.53
99-000-11010	.00	.00	.00
Grand Totals:	20,312.54	20,312.54-	.00

Dated: _____

Mayor: _____

City Council: _____

_____

_____

_____

_____

_____

City Recorder: _____

Report Criteria:
Report type: Invoice detail
Check.Type = {<>} "Adjustment" {AND} {<>} "EFT"

CITY OF JOHN DAY

CITY OF JOHN DAY
CITY COUNCIL MINUTES October 28, 2025

COUCILORS PRESENT:
Sherrie Rininger, Mayor
Chris Labhart, Councilor
Bradley Hale, Councilor
Ron Phillips, Councilor
Vern Pifer, Councilor
Heather Swank, Councilor
Meloni Cochran, Councilor

COUNCILORS ABSENT

STAFF PRESENT:
Melissa Bethel, City Manager
Don Gabbard, Fire Chief

Agenda Item No. 1—Call Meeting to Order
The City Council meeting was called to order at 6:30 pm.

Agenda Item No. 2—Pledge of Allegiance
The City Council stood for the Pledge of Allegiance.

Agenda Item No. 3—Roll Call and Attendance
All councilors were present.

Agenda Item No. 4—Amend or Accept Regular Agenda
Councilor Phillips made a motion to approve the agenda as published. The motion was seconded by Councilor Cochran and passed unanimously.

Agenda Item No. 5—Public Comments
No public comments were made.

Agenda Item No. 6—Consent Agenda

- **a.** Accounts Payable through 10-20-25
- **b.** Minutes of City Council Meeting 10-14-2025

Councilor Hale made a motion to accept the consent agenda. The motion was seconded by Councilor Swank and passed unanimously.

Agenda Item No. 7—Motion regarding Writ of Mandamus filed against the City of John Day
Councilor Hale moves that the City of John Day show cause and contests in response to the Writ of Mandamus that may be issued by the Grant County Circuit Court in relation to a petition for alternative Writ of Mandamus filed in the Grant County Circuit Court by Nicholas Green and Morgan Green naming the City of John Day and John Day Urban Renewal Agency as defendants. The motion was seconded by Councilor Phillips and passed 6-1 with Councilor Labhart being opposed.

Agenda Item No. 8—Finance Update—Rob Gaslin

Bethel provided Council with the financial update prepared by Gaslin. The City is preparing to start the audit for last year's finances. Gaslin will be spending more time at City Hall to assist with this process.

Other Business:

Agenda Item No. 9—City Manager Comments

a. Strategic Plan Update
The Strategic Plan process is ongoing.

A Community Meeting will take place on November 5th from 6-7 at the John Day Senior Center.
A focus group will also be held, incorporating input from the selection of the completed community surveys.
Gabbard reviewed expenses including equipment repairs.
Bethel noted that the City has an excellent team of employees. Holiday lights will be installed the first week of November and staff is preparing for winter operations.

Agenda Item No. 10—Mayor and Council Comments

Council received a letter from the Carrie Young Memorial, a non-profit organization that raises funds for the elderly in Grant County. Councilor Labhart requested that a discussion about a potential donation to the Carrie Young Memorial be added to the next agenda.
Mayor Rininger praised Firehall Press for sharing information but noted a recent error about the statue, which has since been corrected.

Adjourn:

There being no further business before council the meeting was adjourned.

_____
Melissa Bethel, CM

CITY OF
JOHN DAY

REQUEST FOR COUNCIL ACTION

DATE ACTION REQUESTED: November 18, 2025			
Ordinance ☐	**Resolution ☐**	**Motion X**	**Information ☐**
Date Prepared: 11-12-25		**Dept.: City Manager's Office**	
SUBJECT: Timber Truckers Light Parade request for Community Dollars		**Contact Person for this Item: Melissa Bethel, City Manager, bethelm@grantcounty-org.gov 541 575 0028 ex 4224**	

SUBJECT: Request by Timber Truckers Light Parade for budgeted Community Dollars in the amount of $1,500.00

BACKGROUND: The City of John Day receives 3% Transient Tax dollars from short term lodging (hotels and STRs) within the City limits. State law requires 70% of the dollars to be spent on tourism activities; while 30% of dollars collected are unrestricted. In the FY25-26 Budget, the City Council approved a line item of $25,756 in which the estimated 30% unrestricted funds were allotted for grants to community organizations based on requests.

On July 8th, 2025 the Council discussed community grants and further defined the parameters for future applicants. The Council agreed to only use $15,000 per year of the allotted community dollars. With a maximum grant amount of $1,500 per request. Awards may be given for 3 years and then allotted on a case by case basis. In addition, a report must be given to the Council by the awardee on how the funds were used. Given these policies The Timber Truckers Light Parade applied last year for an award of $100.00.

FINANCIAL IMPACT: The Community grant budget would have $12,000 remaining if the total $1500 were allotted to the Applicant.

ATTACHMENTS:
Timber Truckers Light Parade Community Grant Application and materials

Suggested Motion: I move the City of John Day City Council approve/deny the request from Timber Truckers Light Parade in the amount of $_____.

Community Grant Application

1450 E. Main Street- John Day, Or 97845| ph. (541) 575-0028 | www.CityofJohnDay.com

CITY OF JOHN DAY

The City of John Day may provide community assistance grants up to $1500.00 to non-profits entities and organizations that serve the John Day community. Community entities and organizations that serve John Day will need to meet at least one of the following criteria to be eligible for a grant and provide the necessary documentation:

- Provides assistance for essential utilities, food, medical needs, clothing or shelter.
- Provides educational or recreational opportunities for children or seniors.
- Provides a specific service which betters the community.
- Generates/supports economic activity in John Day.

In evaluating requests, the City will consider the following criteria:

- The requesting organization's history of success.
- The organizational and financial stability of the requesting organization.
- The number and types of community members served by the request.
- The ability to measure and track the effectiveness of the project or service.
- Grant funds will not be used for travel, budget deficits or for routine operating expenses.

First, please designate whether this grant will be used to generate or support Tourism. If yes, see pg. 3 for additional steps/information required. We also require a budget sheet for either type of grant submission, see pg. 2.

Tourism Grant TRT Fund ☐ Standard Community Grant Submission ☐

Please type or print clearly:

1. Organization: Timber Truckers Sight Parade
2. ~~Non-Profit~~ ID #: Unincorporated case# 26-14892 65
3. Mailing Address: 624 NW Bridge St. John Day
4. Telephone No.: 541-620-4032
5. Email: LsLind8@aol.com
6. Contact Person: Leslie Traylor
7. Requested Amount: 1500.00
8. Project/Use for Funds: financial help to put on parade
9. Attach a letter explaining how the funds will be used, how the criteria will be met, and any other information relevant to the request.

RECEIVED
NOV 06 2025
CITY OF JOHN DAY

Return completed applications and letters to:

City of John Day
Attn: City Manager
450 E. Main Street
John Day, OR 97845

Date Received:_____

Approved____ Denied____ Date_____

Amount_____

CITY OF
JOHN DAY

Budget Spreadsheet

Name of Event: Timber Trucker Night Parade

Income 2024	Estimated	Actual
Event Proceeds (entry fees, ticket sales, etc.)		
donations	4500	4500
dinner donations		175
parade entry fees @ $10/ea		290
TOTALS		

Extra Sales (auction, raffle, misc. sales)		
TOTALS		

Sponsorships		
Transient Room tax 2025		1500
TOTALS		

Donations		
TOTALS		

6465

Expenses	Estimated	Actual
Site/Decorations (equipment, balloons, food, etc.)		
insurance		318
stamps		136
Blue Mt Eagle - Ads		244
KJDY	"	180
dinner supplies - 40 lbs		298
dinner donations		175
entry prizes		1550
TOTALS		

Other Expenses		
Esther Wooden		364
cinn. rolls		
driver drawing prizes		2356
office supplies		60
Benny Santos PA system		200
Snake Butte Thank you for ornaments		70
TOTALS		5951

Overall Budget	Estimated	Actual
Income		6465
Expenses		5951
Net Profit (Loss)		514

carryover from last yr. 1171

1685

CITY OF JOHN DAY TOURISM GRANT FUNDING CRITERIA

1. Demonstrate how the proposed tourism-related project, event or activity will be focused on tourists (as defined under ORS 320.300(10)).

2. Demonstrate how the organization will use TRT funds for one or more of the following purposes: (i) advertising, publicizing or distributing information for the purpose of attracting and welcoming tourists; (ii) conducting strategic planning and research necessary to stimulate future tourism development; (iii) marketing special events and festivals designed to attract tourists; (iv) operating a tourism promotion agency (as defined under ORS 320.300(8)); and/or (v) developing, constructing or operating a tourism-related facility (as defined under ORS 320.300(9)).

3. Demonstrate how the proposed tourism-related project, event or activity will promote local tourism and describe the beneficial results for the City of John Day, including, but not limited to, any or all of the elements: (i) increase in tourist dollars spent in the City of John Day; (ii) increase in overnight stays in hotels, motels, RV parks, inns, Bed and Breakfast establishments and other accommodations subject to the transient room tax and located within the City of John Day; (iii) increase in tourist visits to business establishments within the City of John Day; (iv) increase in publicity about the City of John Day as a tourist destination; and (v) other primary or secondary benefits of increased tourism in the City of John Day or the surrounding local area.

4. Demonstrate how the applicant organization does or plans to comply with all applicable local, state and federal laws, ordinances and regulations relating to the organization and their proposed project, event, or tourism activities.

CITY OF JOHN DAY TOURISM / COMMUNITY GRANT APPLICATION INFORMATION

Tourism / Community Grant Applications may be submitted to the City of John Day by any non-profit organization at any time throughout the year. Funds will be allocated by approval of the City Council and as available.

The John Day City Council will review all applications, schedule proposal presentations, and conduct site visits, as appropriate. The City Council will then discuss the various proposals and based on budgetary restrictions fund the projects it deems most advantageous to the city as a whole.

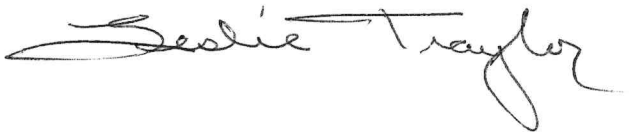
Prices continue increase. Our insurance for this one evening event is around $300 and we now have a $150 parade permit. We continue to spend about 95% in purchasing prizes in Grant County. We do not have fund raising since our merchants and individuals donate, we feel that is enough to ask. We pretty much give out everything taken in with sometimes enough left over to start the next year.

We always have a great turnout locally for the parade, but also visitors and parade entries from other Grant County communities. We believe the locals and visitors eat and shop locally prior to the parade.

At the "shack" where the drivers register, we have gift bags for each driver, purchased with donated funds. We provide coffee, hot chocolate and cookies for the entrants.. We have been having around 25- 28 fabulous entries. While registering the drivers, and family members who helped decorate the entries put their names in a bucket. At the awards dinner, we draw the names for winners. We try to have 2 prizes per entrant. These are not junkie prizes and this encourages partipation. There are also cash prizes and we play a couple of games that have cash prizes for adults and kids.

The Elks club prepares a chili or stew dinner. We have a collection bucket for dinner donations at the dinner. The amount collected is never enough to cover the Elks Clubs expenses, so we add to that amount. We also clean up the dining room after the awards dinner.

We start our preparations early in October, choosing a theme, sending out letters, calling donators to make sure they are a go again. There is a lot of work putting on this event. Driving into town the night of the parade from the "shack", seeing all the cars and trucks lined up to watch, firepits going, kids waving and shouting, music playing at the intersection, donated by Benny Santos from Dairy Queen, this is the only reason we continue this event.



Mark Witty – Superintendent

GRANT SCHOOL DISTRICT NO. 3

401 N Canyon City Blvd | Canyon City, OR 97820-6111
Phone: (541)575-1280 | Fax: (541)575-3614

November 12, 2025

John Day City Hall
450 E Main St
John Day, OR 97845
Re: Curfew Ordinance

Dear City Council Members,

Under Oregon law, "regular school attendance" means that students are present for more than 90% of their enrolled school days. Grant School District #3 data shows a concerning downward trend in this measure—from 79% of students attending regularly in 2020–21 to a projected 60.8% by 2028–29. Improving student attendance has become one of our highest priorities as we work to re-engage students and support families.

In response to this challenge, the District supports policies that strengthen student engagement and promote community safety. The proposed curfew ordinance is an important step in this effort. By limiting unsupervised minors from gathering in public areas during school hours, the ordinance reinforces shared accountability among schools, families, and the broader community in encouraging consistent school attendance.

Adopting this ordinance will help restore structure, promote positive youth development, and protect the well-being and future success of our community's children.

Thank you for your thoughtful consideration and your continued partnership in supporting our youth and community.

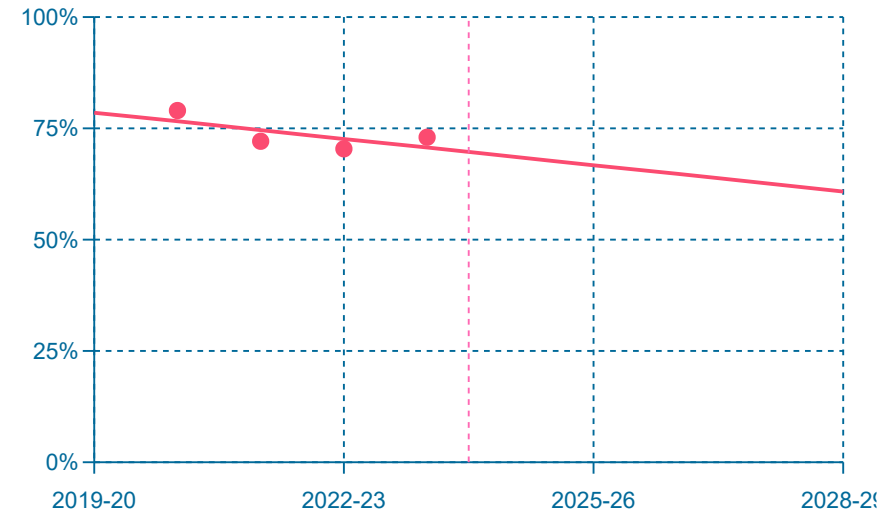
Sincerely,

Mark W. Witty
Superintendent Grant SD #3

All Students

Grades K-12

K-12 students who attend 90% or more of their enrolled school days.



• All Students ↗ All Students Trend • Projection Year Divider

Historical

2020-21	2021-22	2022-23	2023-24
79% n = 499	72.1% n = 470	70.4% n = 449	73% n = 448

Projected

24-25	25-26	26-27	27-28	28-29
68.7%	66.7%	64.8%	62.8%	60.8%

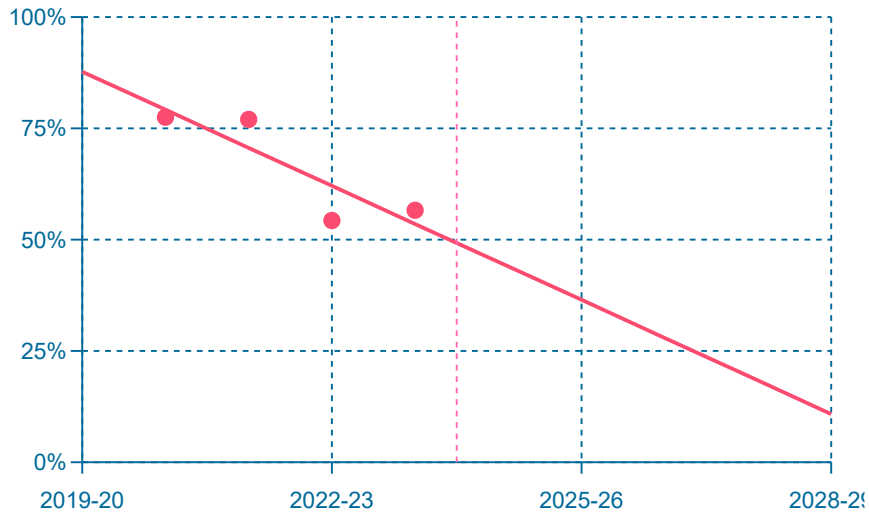
Trends

Growth Rate	Trend Line	R^2
-2.0%	y = -2.0x + 76.6	0.5

All Students

Grades K-12

K-12 students who attend 90% or more of their enrolled school days.



• All Students ↗ All Students Trend • Projection Year Divider

Historical

2020-21	2021-22	2022-23	2023-24
77.5% n = 783	77% n = 1478	54.3% n = 1616	56.6% n = 1721

Projected

24-25	25-26	26-27	27-28	28-29
45%	36.5%	27.9%	19.4%	10.8%

Trends

Growth Rate	Trend Line	R^2
-8.5%	y = -8.5x + 79.2	0.8

ORDINANCE NO. 25-06

AN ORDINANCE AMENDING TITLE 10 CHAPTER 2 AS IT RELATES TO MINORS AND CURFEW

WHEREAS, the City of John Day seeks to protect the safety and welfare of minors and promote school attendance as to those minors required to attend school; and

WHEREAS, the City's curfews should meet the City's interest in promoting the health, safety and welfare of the community while not placing excessive burdens on the rights of individuals;

NOW, THEREFORE, the city of John Day ordains as follows**:**

Section 1. Title 10 – Police Regulations Chapter 2 – Minors; shall be Amended to Add a new Section 3 under Title 10 Chapter 2; entitled Daytime Curfew.

Section 2. A new Title 10 – Police Regulations Chapter 2 Section 3 – Daytime Curfew; shall be added in its entirety as numbered from 10-2-3 to 10-2-3-5 below;

10-2-3: Daytime Curfew.

(1) It shall be unlawful for any minor between the age of seven (7) and eighteen (18) who has not completed the twelfth grade to be on any street, highway, park, alley, or other public place during School Hours except while attending school as required by ORS 339.010 to 339.065. unless such minor is:

a. Accompanied by the minor's Parent or other Adult that is authorized by the minor's parent or by the law to have care and custody of the minor; or

b. Engaged in a lawful pursuit or activity that allows the minor's presence in such public place during School Hours and is authorized by the minor s Parent or the principal or other designated school official at the school where the minor is enrolled; or

c. Traveling directly between school and home or to another location designated by the minor's parents after being authorized and approved to be away from school as provided in ORs 339.065, but is not suspended or expelled; or

d. Emancipated or exempt from compulsory school attendance pursuant to ORS 339.030.

(2) Violations of this subsection will result in progressive punishment:

a. The first violation of this subsection will result in the minor being returned home or to school by a police officer. A letter describing the minor's behavior will be sent to the parent or guardian.

b. The second violation of this subsection will result in the minor being referred to the Grant County Juvenile Department. The parent will receive a citation which may qualify for diversion if the minor complies with this section for one year without additional violations of this Ordinance.

(3) No parent or adult person having the care or custody of a minor between the age of seven (7) and eighteen (18) who has not completed the twelfth grade shall allow such minor to be in or upon any

street, highway, alley, park or other public place during School Hours except as otherwise provided in this subsection.

(4) For purposes of this section, "School Hours" are the hours of full-time school that the minor would attend in the school district where the minor resides on any day that school is in session, or, if the school in the school district of residence is unknown, "Regular School Hours" are the school hours of the ____ School District on any day that school is in session. A minor being home schooled shall comply with the regular hours and schedule established by the home school.

10-2-3-1. Policy Custody.

(1) Any police officer is authorized to take a minor that has violated Section A of this Ordinance into custody. The officer may take the minor in custody to the Grant County Sheriff's Office, the Oregon State Police Outpost, or another location as designated by the School District in which the child is found. An officer who takes the minor into custody shall use due diligence to find a parent and release the minor to a parent as soon as practicable.

(2) In lieu of holding a minor who has violated Section A of this Ordinance until the minor is released to a parent. Any police officer is authorized to release such minor to the principal or other designated school official at the school where the minor is enrolled.

10-2-3-2: Citation in Lieu of Custody.

Any police officer may issue a citation to a minor that has violated Section A of this Ordinance in lieu of taking the
minor into custody provided the minor is released to a parent, guardian or school official. The citation shall be returnable to the Grant County Juvenile Department.

10-2-3-4: Multiple Violations.

(1) Any minor that has violated Section A of this Ordinance more than once may be taken into custody and transported home by the police officer, who shall then serve the parent with notice that the parent will be contacted at a later time concerning the parents need to appear before the juvenile court of Grant County with the minor to show cause as to why the minor violated this section more than once.

(2) Any parent of a minor that has violated Section A of this Ordinance more than once shall be issued a citation to
appear in the Grant County Juvenile Court.

10-2-3-5: PENALTY.
When a parent, guardian or other adult person in custody of a child, after having been notified that the child has violated this chapter, permits the child to violate the provisions of this chapter a second time, the parent commits a Class A violation. Any other violation constitutes a Class C violation.

Section 3: Severability
If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed

this Ordinance, and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared invalid or unconstitutional.

This Ordinance was passed and adopted by the John Day City Council by a vote of _____for and ____ against and Approved on this _____ day of November, 2025

_____

Sherrie Rininger, Mayor

ATTEST:

_____

Melissa Bethel, City Manager

KELLER ASSOCIATES

233 SW Wilson Ave, Suite 203
Bend, OR 97702

(503) 364-2002

November 12, 2025

Melissa Bethel
City Manager

Re: John Day WTF – SBR Equipment Pre-Purchase
Summary of Bids

Dear Melissa,

A request for proposals for the pre-purchase of Sequencing Batch Reactor (SBR) systems, which is a critical component of the design of the new Wastewater Treatment Facility (WTF), was advertised in late September. One bid was received on October 15, 2025 from Aqua Aerobics Systems, Inc. (AASI) in the amount of $1,766,000. AASI is a manufacturer of SBR equipment and their bid was found to be responsive. No protests were received after bids were opened.

Following this period of time, discussions were had with AASI to identify potential cost savings opportunities and to clarify items in their scope which were incorrectly bid. These discussions resulted in an amended proposal and scope of work from AASI in a final amount of $1,544,160.

It is the recommendation of Keller Associates to issue a Notice of Award for contract for the SBR equipment to AASI in the amount of $1,544,160. Should the Council vote to award this contract, negotiations on contract terms will be conducted and a signed contract can be presented to the City for contract execution.

Sincerely,

KELLER ASSOCIATES, INC.

Dallin Stephens, PE
Wastewater Design Lead

Enclosures
Notice of Award
AASI Proposal Package 180987
AASI Proposal Amendment Letter

cc: Jim Pex, PE

[doclog/file location]

NOTICE OF AWARD

Date of Issuance:	November 18, 2025		
Owner:	City of John Day	Owner's Contract No.:	
Engineer:	Keller Associates, Inc.	Engineer's Project No.:	225008
Project:	John Day WWTF Improvements		
Bidder:	Aqua-Aerobic Systems, Inc.		
Bidder's Address:	6306 N. Alpine Rd., Loves Park, IL 61111		

TO BIDDER:

You are notified that Owner has accepted your Bid dated **October 15, 2025** for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

The equipment pre-purchase of the *Sequencing Batch Reactor Equipment and scope of work described in the Bid dated October 15, 2025, with the proposal amendment, dated November 12, 2025.*

The Contract Price of the awarded Contract is: $ 1,544,160

One (1) unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

You must comply with the following conditions precedent within 30 days of the date of receipt of this Notice of Award:

1. Deliver to Owner one (1) counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation as specified in the bidding documents.
3. Other conditions precedent (if any): **None**

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in the bidding documents.

Owner**:**

Authorized Signature

By:

Title:

Copy: Jim Pex, PE
Dallin Stephens, PE

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

November 12, 2025

Correspondence ID#: AAL-52105
Keller Associates
Attn: Dallin Stephens, P.E.
305 North 3rd Avenue, Suite A
Pocatello, Idaho 83201
USA
Ph# 208/238-2146
Email: dstephens@kellerassociates.com

Project: JOHN DAY WWTP OR
RE: 2025-10-15 Proposal Package 180987 Proposal Amendment Letter

AMENDMENT NUMBER 1 TO AQUA-AEROBIC SYSTEMS' PROPOSAL:

This letter amends and is an integral part of the above referenced Aqua-Aerobic Systems, Inc. proposal. The proposal, based on discussions with Keller and Associated to value engineer the project, is amended as follows.

PROPOSAL AMENDMENT(S):

1. Remove two (2) WAS pumps from AASI's scope of supply, reducing the total number of WAS pumps provided to two (2).
2. Replace the Kaeser Screw Blowers with Kaeser PD blowers without integral VFDs
3. Revert all valves to AASI standard (ABZ for air valves, all others Milliken with Auma actuators (actuators as needed)).
4. Revise the post-eq to 102'x17'x11.5' HWL. The LWL to Centerline of Discharge for the decanter will now be 1.3'.

The deducts for these changes are as follows:

Removal of two (2) WAS pumps: $28,700
Replacement of Kaeser Screw Blowers with Kaeser PD blowers without Integral VFDs: $111,200

Revert all valves to AASI standard: $74,600

The revised price for the equipment in this design, including the revised performance bond based on the revised scope of supply, is $1,544,160

Additionally, during discussions with AASI and Keller, there was a potential interest in proceeding with preliminary drawings from AASI prior to proceeding with a full submittal package. If that route is preferred, our lead times for submittals shall be revised as follows:

-We expect PRELIMINARY CONCEPT drawings will be completed and in transit to you within 4-6* weeks after receipt of order. Following finalization of the preliminary concept and our receipt of Purchaser vendor's basin detail drawings, site layout, hydraulic profile and building drawings (if applicable) we expect engineer's submittal data will be completed and in transit to you within approximately 4-6* weeks. At time of order placement, if it is determined preliminary concept drawings are not needed in order to proceed with preparation of engineer's submittal data, we expect submittals to be completed and in transit to you within 8-10* weeks after receipt of order with acceptable terms and conditions and guarantee of payment. We expect receipt of approved engineer's submittal with release for manufacture within 4-8 weeks of our transmittal of submittal data. We expect shipment of equipment (transit time excluded) to be approximately 16-22* weeks (or control panel/valve lead times, whichever is more) from our receipt of approved engineer's submittal data and release for manufacture. Schedules may be adjusted at time of order placement, depending upon existing order backlog.

*Weeks quoted are actual working weeks.

If you have any questions regarding this amendment, please do not hesitate to contact our local representative, listed below.

Sincerely,

Nicholas Fortsas
Project Application Engineer

CC: Aqua-Aerobic Systems, Inc.
Scott Kelly / SKelly@aqua-aerobic.com

Aqua-Aerobic Systems, Inc.
Manuel De Los Santos / mdelossantos@aqua-aerobic.com

Goble Sampson Associates, Inc / ph#: 425/392-0491 / fx#: 425/392-9615
Douglas Allie / dallie@goblesampson.com

6306 N. Alpine Rd. Loves Park, IL 61111-7655 p 815.654.2501 f 815.654.2508 www.aqua-aerobic.com

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

Sequencing Batch Reactor Equipment Procurement for City of John Day, OR

John Day Wastewater Treatment Facility Improvements Project – Project # 225008-060

Project ID # 116694

Bid Date: October 15, 2025

Nicholas Fortsas, Project Application Engineer
Phone: 815-639-4530 | Fax: 815-654-8258
Email: nfortsas@aqua-aerobic.com

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

October 15, 2025

Correspondence ID#: AAL-51871
John Day, City of
Attn: Melissa Bethal
450 East Main Street
John Day, Oregon 97845
USA
Email: bethelm@grantcounty-or.gov

Project: JOHN DAY WWTP OR

RE: City of John Day, OR - John Day Wastewater Treatment Facility Improvements Project - Request for Proposals - Project # 225008--060
Specification Section 46 53 53 - Sequencing Batch Reactors
AASI ID # 11694 - AASI Proposal # 180987 Dated 10/9/2025

Dear Melissa,

We are pleased to enclose our proposal package for the AquaSBR® Sequencing Batch Reactor System for the John Day Waste Water Treatment Plant in John Day, Oregon. Included within this package are recommendations for a SBR system process that meets or exceeds the effluent requirements provided. Additionally, we have included a P&ID, Layout Drawings, an installation list and detailed explanations and brochures highlighting the advantages of the AquaSBR® process.

We would like to draw special attention to the features and benefits of the AquaSBR® outlined in the latter portions of Section 5. Also included in this section is an operational description of the batch process and key attribute of the system. Additional design details, including a design report, detailed design calculations and a scope of supply can be found in Section 2 of the proposal package.

In terms of warranty, Aqua-Aerobic Systems if offering a 2-yr comprehensive warranty (parts & labor) for all equipment included in our scope of supply. In addition to the process guarantee and warranty is Aqua-Aerobic Systems' help line. This line is available 24/7, year-round. This benefit is available for the life of the plant at no additional cost to the owner. When the someone calls the help line, the phone will always be answered by customer service personnel familiar with the process. They will have the ability to look up the existing plant and equipment and walk through any

6306 N. Alpine Rd. Loves Park, IL 61111-7655 p 815.654.2501 f 815.654.2508 www.aqua-aerobic.com

troubleshooting required or ship critical parts overnight. Please see Section 5 for additional details on process guarantee and the 24/7 help line.

Aqua-Aerobic has been providing batch process treatment systems since 1986. Since then, over 1,200 systems have taken advantage of the innate flexible process control capabilities of the AquaSBR®, featuring separation of aeration and mixing (Aqua MixAir®). This flexible process control provides the ability to change the treatment environment to meet more stringent requirements as the plant's needs change. For additional information on the operational flexibility of the AquaSBR® system, please see section 5 of this proposal.

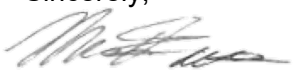
Please note, the following changes to the scope of supply have affected the pricing provided in August. These changes are:
- Upgrade from Roots to Kaeser Blowers
- Upgrades to Class 1 Division 2 equipment
- Additional sludge pump per SBR basin and an additional Post-EQ pump
- Spare Parts
- pH Probes for the SBR Basins
- Stainless Steel Diffusers for the Post-EQ in lieu of PVC Diffusers
- Payment Bond
- 2 year warranty

Aqua-Aerobic Systems would be happy to discuss potential value engineering solutions based on the changes above.

Aqua-Aerobic Systems, Inc. is offering the proposed equipment to meet the specified requirements and Addendum 1, unless otherwise noted herein, subject to approval by the Owner or the Consulting Engineer. Please take a moment to review our proposal notes and drawings for Aqua-Aerobic Systems' equipment terminations and items not included in Aqua-Aerobic Systems' scope of supply which are to be provided by the Buyer or Buyer's Installation Contractor.

We appreciate the opportunity to offer our proposed solution for John Day's wastewater treatment needs and welcome any questions that may arise regarding our system during the evaluation period. At the end of the day, this decision goes beyond simply selecting equipment; you are selecting a partner for the next 20+ years. We are confident Aqua Aerobic Systems Inc. can be that partner you count on for John Day. Please feel free to contact me (phone: 815-639-4530; email: nfortsas@aqua-aerobic.com), or our sales representative firm (listed below) if you have any questions regarding our proposal offering.

Sincerely,



Nicholas Fortsas
Project Application Engineer

CC: Goble Sampson Associates, Inc / ph#: 425/392-0491 / fx#: 425/392-9615
Douglas Allie / dallie@goblesampson.com

Aqua-Aerobic Systems, Inc.
Scott Kelly / SKelly@aqua-aerobic.com

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

Sequencing Batch Reactor Equipment Procurement for City of John Day, OR –

John Day Wastewater Treatment Facility Improvements Project – Project # 225008-060

Table of Contents

Proposal Date: 10/9/2025

Aqua-Aerobic Systems' documents listed on the Table of Contents are dated 10/9/2025 unless stated otherwise.

6306 N. Alpine Rd. Loves Park, IL 61111-7655 **p** 815.654.2501 **f** 815.654.2508 **www.aqua-aerobic.com**

6306 N. Alpine Rd. Loves Park, IL 61111-7655 **p** 815.654.2501 **f** 815.654.2508 **www.aqua-aerobic.com**

SECTION 00 41 00 – PROPOSAL FORM

Project Identification: **SBR Equipment Procurement**

This SBR Equipment Procurement is part of the City of John Day's (the "Owner's") John Day Wastewater System Improvements Project. The Project will be constructed through a Design-Bid-Build (DBB) project delivery approach.

Keller Project Number: 225008-060

This Proposal is Submitted to the City of John Day.

The Owner's Representative is Keller Associates, Inc.

Article 1

The undersigned Proposer proposes and agrees, if this Proposal is accepted, to enter into an agreement with the Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Proposal and in accordance with the other terms and conditions of the Contract Documents.

Article 2

Proposer accepts all of the terms and conditions of the Request for Proposal and Instructions to Proposers, including without limitation those dealing with the disposition of Proposal Security. Proposer will sign and submit the Agreement with the Bonds and other documents required by the Proposal Requirements within five (5) business days after the date of the Owner's Notice of Award.

Article 3

In submitting this Proposal, Proposer represents, as more fully set forth in the Agreement, that:

(a) Proposer has examined copies of all the Proposal Documents.

(b) Proposer has examined copies of the following Addenda (receipt of which is hereby acknowledged):

Date	Number
October 10, 2025	1

(c) Proposer has familiarized itself with the nature and extent of the Contract Documents, Work, and all local conditions and laws and regulations that in any manner may affect cost, progress, performance or furnishing of the Work.

(d) Proposer has given the Owner and Owner's Representative written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by the Owner and Owner's Representative is acceptable to Proposer.

(e) Proposer has read, studied and understands the entire set of Proposal Documents including the Specifications, Drawings, and Agreement and finds them fit and sufficient for the purpose of preparing its Proposal and constructing the Work required.

(f) Proposer represents that its Proposal is based on providing all of the material, labor, equipment and services necessary to complete the Work in full compliance with the Contract Documents without exception.

Article 4

Requirements for Oregon Public Works Contracts.

(a) **NONCOLLUSION AFFIDAVIT**. Proposers are required to execute and submit with their Proposal Document Number 00 45 19 "Noncollusion Affidavit."

(b) **USE OF PROPOSAL DEPOSITORIES**. The Proposer declares that it has not used subcontractors' Proposals from a Proposal depository that in any way attempts to restrict, control, influence or regulate free open price competition among subcontractors in the submission of their Proposals to prime Proposers.

(c) **SECURITY FOR COMPENSATION CERTIFICATE**. Proposers are required to execute and submit with their Proposal Document Number 00 48 02 "Security for Compensation Certificate."

(d) **ADDITIONAL FEDERAL AND STATE REQUIREMENTS**. Proposers shall review and comply with the Federal and State Requirements for the Project, described in Section 00 52 30, Exhibit C to the Agreement.

Article 5

PROPOSAL SCHEDULE

The Proposer shall fill out the Lump Sum and Stage 1 and Stage 2 Proposal Prices and information for the work in the Proposal section 00 52 00, 2.1 and 3.1 below. In the event that a Proposer has two (2) SBR Equipment products, copies of the below Proposal outlined in section 00 55 00, 2.1 and 3.1 shall be completed for each product.

Total Proposal Price – Includes Stage 1 and Stage 2

Total Proposal Price: $ 1,766,000

Total Lump Sum Proposal Amount (Words):

One Million, Seven-Hundred Sixty-Six Thousand Dollars

Stage 1 Work Proposal Price (Item 2.1): The Stage 1 Proposal includes equipment shop drawing submittals and working with the Owner and Owner's Representative during the equipment shop drawing submittal and approval process to develop approved shop drawings. The Stage 1 Proposal Price shall be 10 percent (%) of the Total Proposal Price.

Item 2.1 Proposal Price: $ 176,600

Item 2.1 Proposal Amount (Words):

One Hundred Seventy-Six Thousand, Six Hundred Dollars

Stage 2 Work Proposal Price (Item 3.1): The Stage 2 Proposal price includes fabrication and delivery of the Equipment in accordance with Owner approved shop drawings, assistance to the Project Contractor with Equipment installation, start-up testing, training, commissioning, and other work as detailed in the Proposal and Contract Documents.
The Stage 2 Work (including the Agreement therefor) will be assigned by the Owner to the Contractor. The Owner will pre-pay a minimum of $50,000 for the Stage 2 work prior to Stage 2 NTP, which will reduce the balance owed for Stage 2 work and the basis for the amount of escalation owed (if any). The Owner may elect to pre-pay an amount greater than the minimum at their discretion. Pre-payments shall be refunded at the Owner's request if Stage 2 work is not authorized.

The Stage 2 Price shall be guaranteed through the expected Stage 2 NTP date provided in the Agreement. For Owner or Contractor delays that require an extension of Equipment delivery or startup and commissioning, the Stage 2 Work price shall be adjusted monthly by the US Department of Labor, Bureau of Labor Statistics, Consumer Price Index for the West Region – All Items.

Item 3.1 Proposal Price: $ 1,589,400

Item 3.1 Proposal Amount (Words):

One Million, Five-Hundred Eighty-Nine Thousand, Four Hundred Dollars

Article 7

BEST VALUE SELECTION

The Owner intends to award the Project to the best value Proposer. Best value will be determined by the Owner, as described below in the Proposal Form, in its review of Proposer responsiveness, Proposal price, life cycle costs (guaranteed energy use, guaranteed replacement parts costs, etc.), experience, warranty terms, guaranteed product performance, comprehensiveness of the Proposer's scope of supply, and the extent to which the Proposer's response meets the requirements of the Contract Documents.

Proposer shall fill out the Proposer Qualifications, Section 00 45 13, to provide information for the best value selection process.

The best value selection will be made based on the highest score based on the criteria provided below.

Best Value Selection Criteria	Total Possible Points
Capital Cost	35
Constructed Cost	15
Operations and Maintenance	25
Warranty	10
References	15

1. **Capital Cost**: This is the total base bid from the Bid Form, including Phase 1 and Phase 2. The lowest Total Capital Cost from the lowest responsive bidder will receive full points and other bidders will be graded adversely on a sliding scale.

2. **Constructed Cost**: Bidders are required to provide layout drawings, and basin design requirements. Bidders also must identify what equipment must be installed in controlled environments, such as inside buildings or climate controls. Differences in structural, mechanical and electrical design of facilities between bidders will be estimated by the Engineer. Proposer with the lowest cost impact to construction as determined by the Engineer will receive full points and other bidders will be graded adversely on a sliding scale.

3. **Operations and Maintenance Costs:** (20-Year) Present Value: Points will be awarded based upon the present value of the O&M costs, with the low bidder receiving full points and other bidders receiving points proportional to the O&M costs of the low bid. O&M costs shall be calculated based on power consumption costs and regular wear parts replacement incurred over a 20-year period and brought back to present value at a 2.5% discount rate. Bidders shall provide copies of any calculations used to develop operations and maintenance costs. The Owner may request additional documentation from the Bidder to justify the calculations provided.

    a. Power consumption costs shall be based on a per unit $0.08/kWhr

    b. Regular wear parts replacement shall be based on the manufacturer's O&M manual for expected replacement in the year that the replacement is expected to occur.

    c. Chemical usage costs shall be based on $0.90/lb of caustic soda (for pH balancing) and $0.33/lb of BOD that must be added in chemical form (assuming MicroC).

    d. Labor shall be based on expected time required for observation and servicing of the equipment, as outlined in the Bidder's O&M Manual. Labor shall be calculated at $100/hr. Where fixed diffusers are provided, a labor cost for emptying basins to clean the diffusers should be provided.

    Bidders shall provide a table showing annual costs for each year from Year 1 to Year 20 for each of the above noted costs. The Bidder shall assume a linear interpolation of flow and loading between these years. These annual costs shall be brought back to their

present value at the above noted discount rate.

4. Warranty

a. 5 points per year of additional warranty will be awarded based on the additional years of warranty the Vendor offers to provide over the number of years of warranty listed in the respective technical specifications.

5. References

a. Bidder shall provide a minimum of 3 references, with up-to-date contact information of installations of similar size and treatment. Up to 5 points per positive reference will be provided for 3 references selected by the Engineer

Article 8

(a) Proposer agrees that the Work will be completed and ready for acceptance and final payment in accordance with the dates or within the number of calendar days indicated in the Agreement.

(b) Proposer accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work on time.

Article 9

The following documents are attached to and made a condition of this Proposal:

Document Number	Title
00 41 00	Proposal Form
00 43 11	Proposal Security
00 44 00	Designation of Subcontractor or Equipment Manufacturer
00 44 02	Security for Compensation Certificate
00 45 13	Proposer's Qualifications
00 45 19	Noncollusion Affidavit
00 45 20	Technical Information Required with the Proposal
00 61 13	Performance Bond

Article 10

The terms used in this Proposal are defined in the Agreement included as part of the Contract Documents.

Proposer declares that it does possess or will possess a business license of the required classification, valid in the appropriate jurisdiction at the time of contract award.

The undersigned acknowledges that the representations made herein are made under penalty of perjury.

By: Aqua-Aerobic Systems, Inc.
(Business' Name)

Illinois
(State of Incorporation)

By: Kevin Heasley
(Name of Person Authorized to Sign)

(Signature)

Vice President, Operations
(Title)

Business Address: 6306 North Alpine Road

Loves Park, IL 61111-7655

Telephone No.: 815/654-2501 (Switchboard)

END OF PROPOSAL FORM

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

Signatory Authorization
per By-Laws of Aqua-Aerobic Systems, Inc.

ARTICLE IV. OFFICERS

Section 1. Enumeration. The officers of the Corporation shall be chosen by the Board of Directors and shall include a Chairman, a President, Vice Presidents, a Treasurer and a Secretary. The Board of Directors may also elect such other officers and agents as it may deem appropriate. Any number of offices may be held by the same person.

Section 2. Term of Office. The officers of the Corporation shall be elected at the annual meeting of the Board of Directors and shall hold office until their successors are elected and qualified, or until their earlier death, termination, resignation or removal from office. Any officer or agent of the Corporation may be removed, with or without cause, by the Board of Directors whenever in its judgment the best interests of the Corporation will be served thereby, but such removal shall be without prejudice to the contract rights, if any, of the person so removed. Election or appointment of an officer or agent shall not of itself create contract rights. Any vacancy in any office because of death, resignation, termination, removal, disqualification or otherwise, may be filled by the Board of Directors for the unexpired portion of the term.

Section 3. The Chairman. The Chairman shall preside at all meetings of the stockholders and of the Board of Directors. The Chairman shall cause to be called regular and special meetings of the stockholders and of the Board of Directors in accordance with these By-laws and Regulations of Board of Directors. The Chairman may sign, execute and deliver in the name of the Corporation all deeds, mortgages, bonds, contracts or other instruments authorized by the Board of Directors, except in cases where the signing, execution or delivery thereof shall be expressly delegated by the Board of Directors or by these By-Laws to some other officer or agent of the Corporation or where required by law to be otherwise signed, executed or delivered. The Chairman may sign, jointly with the Treasurer and the Secretary, certificates of stock of the Corporation. The Chairman shall appoint and remove, employ and discharge, and fix the compensation of all servants, agents, employees and clerks of the Corporation other than the duly elected or appointed officers, subject to the approval of the Board of Directors. In addition to the powers and duties expressly conferred upon the Chairman by these By-laws, the Chairman shall, except as otherwise specifically provided by the laws of the State of Illinois, have such other powers and duties as shall from time to time be assigned to the Chairman by the Board of Directors.

Section 4. The President. The President shall be the chief executive and operating officer of the Corporation. The President shall have general and active management of the business and affairs of the Corporation, subject to the control of the Board of Directors, shall see that all orders and resolutions of the Board of Directors are effectuated, and shall have such other powers and duties as the Board of Directors assigns to him. He shall ensure that the books, reports, statements, certificates and other records of the Corporation are kept, made or filed in accordance with the laws of the State of Illinois. He may sign, execute and deliver in the name of the Corporation all deeds, mortgages, bonds, contracts or other instruments authorized by the Board of Directors, except in cases where the signing, execution or delivery thereof shall be expressly delegated by the Board of Directors or by these By-Laws to some other officer or agent of the Corporation or where required by law to be otherwise signed, executed or delivered. He may sign, jointly with the Treasurer and the Secretary, certificates of stock of the Corporation. He shall appoint and remove, employ and discharge, and fix the compensation of all servants, agents, employees and clerks of the Corporation other than the duly elected or appointed officers, subject to the approval of the Board of Directors. In addition to the powers and duties expressly conferred upon him by these By-laws, he shall,

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except as otherwise specifically provided by the laws of the State of Illinois, have such other powers and duties as shall from time to time be assigned to him by the Board of Directors.

Section 5. Vice Presidents. Vice Presidents shall have such powers and duties as the Board of Directors assigns to them. Each Vice President may sign, execute and deliver in the name of the Corporation all deeds, mortgages, bonds, contracts or other instruments authorized by the Board of Directors, except in cases where the signing, execution or delivery thereof shall be expressly delegated by the Board of Directors or by these By-Laws to some other officer or agent of the Corporation or where required by law to be otherwise signed, executed or delivered. In addition to the powers and duties expressly conferred upon them by these By-laws, they shall, except as otherwise specifically provided by the laws of the State of Illinois, have such other powers and duties as shall from time to time be assigned to them by the Board of Directors.

Section 6. Secretary. The Secretary shall: (a) keep a record of all proceedings of the shareholders, the Board of Directors and any committees thereof in one of more books provided for that purpose; (b) give, or cause to be given, all notices that are required by law or these By-laws to be given by the Secretary; (c) be custodian of the corporate records and, if the Corporation has a corporate seal, of the seal of the Corporation; (d) have authority to affix the seal of the Corporation to all instruments the execution of which requires such seal and to attest such affixing of the seal; (e) keep a register of the post office address of each shareholder which shall be furnished to the Secretary by such shareholder; (f) sign, with the Chairman, the President, Vice Presidents or any other officer thereunto authorized by the Board of Directors, any certificates for shares of the Corporation, or any deeds, mortgages, bonds, contracts or other instruments which the Board of Directors has authorized to be executed by the signature of more than one (1) officer; (g) have general charge of the share transfer books of the Corporation; (h) have authority to certify as true and correct copies of the By-laws, or resolutions of the shareholders, the Board of Directors and committees thereof, and of other documents of the Corporation; and (i) in general, perform the duties incident to the office of secretary and such other duties as from time to time may be prescribed by the Board of Directors, the Chairman, the President or Vice Presidents. The Board of Directors may give general authority to any other officer to affix the seal of the Corporation and to attest such affixing of the seal.

Section 7. Treasurer. The Treasurer shall be the principal accounting and financial officer of the Corporation. The Treasurer shall: (a) have charge of and be responsible for the maintenance of adequate books of account for the Corporation; (b) have charge and custody of all funds and securities of the Corporation, and be responsible therefor and for the receipt and disbursement thereof; and (c) perform the duties incident to the office of treasurer and such other duties as may from time to time be prescribed by the Board of Directors, the Chairman, the President, Vice Presidents. The Treasurer may sign with the Chairman, the President, Vice Presidents or any other officer thereunto authorized by the Board of Directors, certificates for shares of the Corporation. If required by the Board of Directors, the Treasurer shall give a bond for the faithful discharge of his or her duties in such sum and with such surety or sureties as the Board of Directors may determine.

Section 8. Other Officers and Agents. Any officer or agent who is elected or appointed from time to time by the Board of Directors and whose duties are not specified in these By-laws shall perform such duties and have such powers as may from time to time be prescribed by the Board of Directors or the Chairman.

Section 9. Duties of Officers May be Delegated. In case any officer is absent, or for any other reason that the Board of Directors may deem sufficient, the Chairman or the Board of Directors may delegate for the time .being the powers or duties of such officer to any other officer or to any member of the Board of Directors.

PROPOSAL BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned,

Aqua-Aerobic Systems, Inc.

as Principal, and
Fidelity and Deposit Company of Maryland
as Surety, are hereby held and firmly bound unto
City of John Day as Owner in the penal sum of

Five Percent of Amount Bid (5% Amount Bid)
dollars for the payment of which sum, well and truly to be made, we hereby bind ourselves, our successors and assigns jointly and severally firmly by these presents.

Signed and sealed, this 8th day of October, 2025.

The Condition of the above obligation is such that where the Principal has submitted a certain Proposal, attached hereto and hereby made a part hereof to enter into a contract in writing, for construction of Sequencing Batch Reactor Equipment Procurement for City of John Day John Day Wastewater Treatment Facility Improvements Project.

NOW, THEREFORE;

(a) If said Proposal shall be rejected, or

(b) If said Proposal shall be accepted and the Principal shall execute and deliver a contract in the Form of the Agreement attachment hereto (properly completed in accordance with said Proposal) and shall furnish Bonds for Faithful Performance of said contract, and for the Payment of all persons performing labor and furnishing material in connection therewith, and provide certificates and policies of insurance as specified in the Proposal documents and shall in all other respects perform the agreement created by the acceptance of said Proposal, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Proposal; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their duly authorized officers, the day and year first set forth above.

Principal:	Surety:
Aqua-Aerobic Systems, Inc. (Full formal name of Principal)	Fidelity and Deposit Company of Maryland (Full formal name of Surety) (corporate seal)
By: _____ (Signature)	By: _____ (Signature) (Attach Power of Attorney)
Name: Kevin Heasley (Printed or typed)	Name: April D. Perez (Printed or typed)
Title: Vice President, Operations	Title: Attorney-In-Fact
Attest: _____ (Signature)	Attest: _____ (Signature)
Name: Barb Kinroth (Printed or typed)	Name: Annette Audinot (Printed or typed)
Title: Contract Administrator	Title: Witness

If Principal is a partnership, all partners must execute BOND.

END OF PROPOSAL SECURITY

intact INSURANCE

Power of Attorney

Surety Bond No: 74735-ZUR-2025-18

Principal Aqua-Aerobic Systems, Inc.
Obligee City of John Day

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: April D. Perez each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **unlimited** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this first day of January, 2023.

ATLANTIC SPECIALTY INSURANCE COMPANY CORPORATE SEAL 1986 NEW YORK

By _____
Sarah A. Kolar, Vice President and General Counsel

STATE OF MINNESOTA
HENNEPIN COUNTY

On this first day of January, 2023, before me personally came Sarah A. Kolar, Vice President and General Counsel of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and she acknowledged the execution of the same, and being by me duly sworn, that she is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.

ALISON D. NASH-TROUT
NOTARY PUBLIC - MINNESOTA
My Commission Expires
January 31, 2030

_____
Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 8th day of October, 2025.

ATLANTIC SPECIALTY INSURANCE COMPANY CORPORATE SEAL 1986 NEW YORK

This Power of Attorney expires
January 31, 2030

_____
Kara L.B. Barrow, Secretary

Please direct bond verifications to surety@intactinsurance.com

THE FIDELITY AND DEPOSIT COMPANY

OF MARYLAND
1299 Zurich Way Schaumburg, IL 60196

Statement of Financial Condition
As Of December 31, 2024

ASSETS

Bonds		$ 181,162,758
Stocks		18,212,825
Cash and Short-Term Investments		2,411,982
Reinsurance Recoverable		20,361,515
Federal Income Tax Recoverable		10,150
Other Accounts Receivable		26,284,837
TOTAL ADMITTED ASSETS		$ 248,444,067

LIABILITIES, SURPLUS AND OTHER FUNDS

Reserve for Taxes and Expenses		$ 103,295
Ceded Reinsurance Premiums Payable		45,005,200
Remittances and Items Unallocated		0
Payable to parents, subs and affiliates		0
Securities Lending Collateral Liability		0
TOTAL LIABILITIES		$ 45,108,495
Capital Stock, Paid Up	$ 5,000,000	
Surplus	198,335,572	
Surplus as regards Policyholders		203,335,572
TOTAL		$ 248,444,067

Securities carried at $78,636,217 in the above statement are deposited with various states as required by law.

Securities carried on the basis prescribed by the National Association of Insurance Commissioners. On the basis of market quotations for all bonds and stocks owned, the Company's total admitted assets at December 31, 2024 would be $236,552,538 and surplus as regards policyholders $191,444,043.

I, LAURA J. LAZARCZYK, Corporate Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company on the 31st day of December, 2024.

Laura J. Lazarczyk

Corporate Secretary

State of Illinois
City of Schaumburg } SS:

Subscribed and sworn to, before me, a Notary Public of the State of Illinois, in the City of Schaumburg, this 25th day of February, 2025.

Notary Public

Official Seal
KATHERINE R SCHULTZ
Notary Public, State of Illinois
Commission No. 686903
My Commission Expires December 7, 2027

SECTION 00 44 00 – DESIGNATION OF SUBCONTRACTOR OR EQUIPMENT MANUFACTURERS

(To be submitted with Proposal)

The Proposer shall list below the names of each subcontractor or equipment supplier who will perform work or labor or who will supply the listed system components to the table below. The Proposer shall provide the general model name or designation of the equipment. The listing of more than one subcontractor or equipment manufacturer for each item of work to be performed with the words "and/or" will not be permitted:

Material Item	Description	Equipment or Material Manufacturer (Do not show Dealer or Supplier)
1	Process Blowers	SBR: Kaeser EBS410M-SFC Post-EQ: Kaeser CB121L-SFC
2	Submersible Pumps	SBR: Flygt 3069 Post-EQ: Flygt NP-3127
3	Decanters	AquaSBR 10x9x16 Floating Decanter
4	Mixers	AquaDDM Direct Drive Floating Mixer
5	Diffusers	SBR: Aqua Retrievable Fine Bubble Diffusers Post-EQ: Aquarius SS Coarse Bubble Diffusers
6		
7		
8		

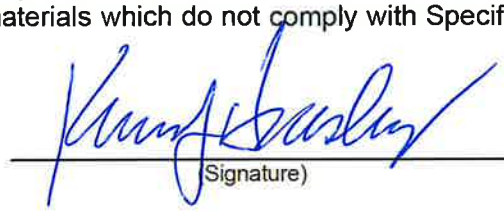
The Proposer must include in the space provided, the name of the subcontractor or equipment manufacturer they used in determining their Proposal Price which will be used by the Successful Proposer in delivering the Project. If the Proposer does not fill in any of the spaces, it will be considered that the Proposer has selected the first-named manufacturer as their selection for those spaces not filled in.

After the opening of Proposals, no changes or substitutions from those listed manufacturers will be allowed without the express written approval of the Owner's Representative. If such change is permitted by the Owner's Representative, it will be evaluated in accordance with provisions below.

Circumstances which will justify changes to the above listing are limited to the following:

1. Manufacturer is unable to meet specifications.
2. Manufacturer fails to honor original quotation upon which the Proposer's Proposal bid was based.
3. Manufacturer goes out of business or ceases to make the specified product.

It is the responsibility of the Proposer to furnish materials and equipment meeting the requirements of the Specifications, and acceptance of the Proposal does not constitute nor imply favorable review or approval of items proposed. The Owner reserves the right to deny approval or acceptance of any equipment or materials which do not comply with Specifications even though listed herein.



(Signature)

Kevin Heasley
(Type or Print Name)

Vice President, Operations
(Title)

Aqua-Aerobic Systems, Inc.
(Company)

END OF SECTION 00 44 00

SECTION 00 44 02 – SECURITY FOR COMPENSATION CERTIFICATE
(To be submitted with Proposal)

TO: City of John Day
(Owner)

450 East main Street, John Day, OR 97845

I am aware of the requirements for every employer to be insured against liability for workers' compensation claims or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

(Signature of Bidder)

Kevin Heasley
(Type or Print Name)

Vice President, Operations
(Title)

Aqua-Aerobic Systems, Inc.
(Company)

6306 North Alpine Road
(Business Address)

Loves Park, IL 61111-7655

Illinois
(Place of Residence)

END OF SECTION 00 44 02

SECTION 00 45 13 – PROPOSER'S QUALIFICATIONS
(To be submitted with Proposal)

SBR Equipment Supplier Qualifications, Experience and Information

Proposer submits, as a part of its Proposal, the following statements as to its qualifications, experience, and location of the technically trained, service support individual who is a direct employee of the SBR Equipment Supplier. Proposer certifies that all statements and information set forth below are true and accurate. Proposer hereby authorizes the Owner to make inquiry as appropriate regarding Proposer's experience.

Proposers shall complete this form in its entirety. Attach additional sheets as required. Failure to submit all required information shall be grounds for rejection of the proposal. Providing erroneous information is grounds for rejection of the proposal. The Owner will be the sole judge in determining if the Proposer meets the minimum experience requirements.

Minimum Experience Requirements: Proposers must have a minimum of twenty-five (25) installations of the proposed SBR system in the United States with design max month flow greater than 1 MGD to be considered eligible for proposal submission.

1. PROPOSER/EQUIPMENT SUPPLIER's name and street address:

   Aqua-Aerobic Systems, Inc., 6306 North Alpine Road, Loves Park, IL 61111-7655

2. EQUIPMENT SUPPLIER's telephone number: 815/654-2501 (switchboard)

3. EQUIPMENT SUPPLIER's Business License: TIN 36-1795700

   Primary Classification: Aqua-Aerobic Systems, Inc. (hereafter AASI) is not a licensed contractor. AASI is a manufacturer of water and wastewater treatment equipment.

   State License Number:

   Supplemental License classifications:

   Name of licensee if different from line (1) above:

4. Name of person who will be designated as Project Manager and point of contact for coordination with the Owner, Owner's Representative, and the Equipment Supplier:

   *

5. Surety Company and Agent who will provide the required Bonds on this Contract:

   Name of Surety: Fidelity and Deposit Company of Maryland

   Address: 1299 Zurich Way, 5th Floor, Schaumburg, IL 60196-1056

*Nicholas Fortsas will serve as your point of contact prior to receipt of the executed project agreement. Nicholas' contact information is as follows: phone 815/639-4530 and his email is nfortsas@aqua-aerobic.com. After the project agreement is executed, a qualified Project Manager will be assigned and will be in contact with you shortly. Additionally, please refer to the Corporate Capabilities document included with this proposal for general information on our staffed Project Managers.

Surety Company Agent: April D. Perez, Attorney-in-Fact

Telephone Numbers: Agent 973/401-5294 Surety 847/605-6000 (Schaumburg office)

6. ATTACH TO THIS PROPOSAL the experience resume of the person who will be designated as Project Manager and point of contact for coordination with the Owner, Owner's Representative, and the Equipment Supplier.

7. SERVICE SUPPORT INDIVIDUAL(S) name and street address:
Aqua-Aerobic Systems' field service specialists are all certified per OSHA's 30-hour Construction Safety and Health training course. They also receive on-going/continuous safety and technical training. The name, contact information, and resumes for the specific field service specialist(s) will be provided as soon as the specialist(s) are designated after award of the project. We confirm the designated Specialist(s) will have extensive Sequencing Batch Reactor experience, as well as comprehensive PLC/programming skills.

8. SERVICE SUPPORT INDIVIDUAL(S) telephone number: 800/940-5008

9. ATTACH TO THIS PROPOSAL the experience resume of the person who will be designated as Service Support Individual and point of contact for the Owner, Owner's Representative, and the Contractor during and following facility startup.

10. Provide the following information for the requirements as described below and listing the following data for each project:

11. Proposer has been engaged in business under its present business name for 56 years.

12. Proposer's experience in work of a nature similar in type and magnitude to that set forth in the Specification extends over a period of 56 years.

13. Proposer has satisfactorily completed all contracts awarded to it, except as follows:

Not applicable (all projects have been satisfactorily completed)

(Name any and all exceptions and reasons therefore. Proposer shall attach and designate additional pages if necessary.)

Signed _____
(Same signature as on Proposal form)
Kevin Heasley
Vice President, Operations

END OF SECTION 00 44 13

SECTION 00 45 19 – NONCOLLUSION AFFIDAVIT
(To be submitted with Proposal)

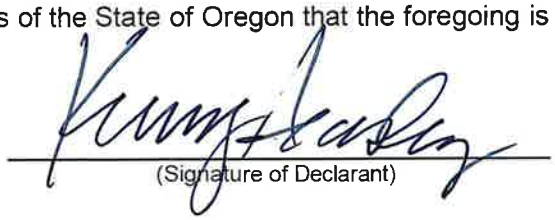
Proposers are required to execute the following Noncollusion Affidavit.

NONCOLLUSION DECLARATION TO BE SUBMITTED WITH BID

I, Kevin Heasley (Name), declare that I am Vice President, Operations (Title) of Aqua-Aerobic Systems, Inc., the party making the foregoing bid, that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder or fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract or anyone interested in the proposed contract; that all statements contained in the bid are true; and further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Executed on October 9, 20 25, in Loves Park, Illinois.

I declare under penalty of perjury under the laws of the State of Oregon that the foregoing is true and correct.



(Signature of Declarant)

END OF SECTION 00 45 19

SECTION 00 52 00 – AGREEMENT

Please refer to Aqua-Aerobic Systems' exceptions and clarifications (E/C's) document for additional information. For ease of reference, E/C's are marked with a "C" stamp with a reference to the specific E/C.

SBR Equipment Procurement Agreement

C # 1

This SBR Equipment Procurement Agreement ("Agreement") is made and entered into [_____], 2025 ("Effective Date"), by and between the Owner of John Day, a charter city and municipal corporation of the State of Oregon (the "Owner"), and [_____] ("Equipment Supplier"). The Owner and Equipment Supplier may be collectively referred to as the "Parties" and individually as a "Party."

RECITALS

A. The City of John Day is a city in the State of Oregon operating under a municipal charter under the Constitution of the State of Oregon. This Agreement is authorized under said charter.

B. The City of John Day provides wastewater services to residents and businesses within the City limits of John Day and within Canyon City.

C. The SBR Equipment procurement is part of the John Day Wastewater System Improvements Project. The Project will be constructed through a Design-Bid-Build project delivery approach.

D. As part of the above, the Owner desires to contract for the SBR Equipment procurement (the "Work") which consists of the following two stages, described below, and all other work indicated in the Contract Documents, which are sometimes referred to, herein, collectively as the "Work":

Stage 1: Provision of SBR equipment ("Equipment") design information, product data and shop drawing submittals.

Stage 2: Fabrication and delivery of the Equipment in accordance with the Owner's approved Stage 1 submittals. Provision of assistance for Equipment installation by the Owner's construction contractor ("Contractor"), and for Equipment testing, startup and training.

E. A Request for Proposals was issued for the SBR Equipment procurement on Wednesday 14th, 2025.

F. The Equipment Supplier submitted a responsive Proposal, and the Owner determined that Equipment Supplier is a responsible, responsive Proposer in accordance with the proposal process for the Work.

G. The Owner intends to issue a separate notice to proceed (NTP) for each Stage of the Work. The Owner intends to assign Stage 2 (this Agreement) to the Contractor. The Equipment Supplier shall accept such assignment of the Agreement to the Contractor for the Stage 2 Work.

H. The Owner and Equipment Supplier desire to enter into this Agreement for the purpose of setting forth the terms and conditions for completion of the SBR Equipment procurement.

IT IS AGREED:

Article 1. Contract Documents

1.1 Incorporation. The following documents are incorporated into and made part of this Agreement by this reference:

Request for Proposal
Instructions to Proposers
Supplier Completed Proposal Forms (Proposal Forms)
Addenda
Project Specifications and Drawings C # 1
Exhibits to this Agreement
Assignment of Contract

These documents shall be referred to collectively as the "Contract Documents." The Contract Documents are intended to be complementary, and a requirement in one document is as effective as if it appeared in all of the Contract Documents. In the event of a conflict between any of the Contract Documents, the documents shall be given effect in the following order: Federal and State funding requirements, any amendments (most recent first), any addenda (most recent first), this Agreement, including Exhibits, Specifications, Instructions to Proposers, Requests for Proposal, Proposal Forms.

1.2 Recitals. The recitals set forth above are true and correct and are incorporated into this Agreement as if fully set forth herein.

1.3 Owner's Representative. The Owner's Representative will be Keller Associates, Inc., herein referred to as the "Owner's Representative", who will assume the duties and responsibilities and will have the rights and authority assigned to the Owner's Representative in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents. The Work was designed by and the Contract Documents were prepared by Keller Associates, Inc..

1.4 Federal and State Requirements. The Owner anticipates wholly or partially funding the Work using a variety of funding sources including Community Development Block Grant, U.S. Department of Agriculture, and/or Department of Environmental Quality (DEQ) Clean Water State Revolving Fund (SRF) Program. The funding requirements are set forth in Exhibit "C" of this Agreement. The Equipment Supplier is responsible for familiarizing themselves with the requirements of the various funding programs, and for understanding and complying with all applicable state and federal requirements. Equipment Supplier shall ensure compliance with all such requirements.

Article 2. Stage 1 Equipment Design and Submittal Process

2.1 Stage 1 Commencement. Stage 1 of the Work shall commence upon issuance by the Owner of a written notice to proceed ("NTP") for Stage 1 ("Stage 1 NTP"), signed by an authorized representative of the Owner.

2.2 Stage 1 Work. Equipment Supplier agrees, upon receipt of the Stage 1 NTP, to timely commence performance of the Stage 1 Work, and to comply with the submittal procedures and requirements for Stage 1, as further set forth in the Specifications and

Drawings, and in accordance with the Work and Milestone Schedule, Exhibit "A", attached hereto and incorporated by reference.

2.3 Corrections to Stage 1 Work. Equipment Supplier shall make corrections and resubmit documents and drawings until all Work required under Stage 1 has been accepted and approved by the Owner, in accordance with the Specifications.

Article 3. Stage 2 Supply of Equipment and Additional Services

C # 5
Schedules per Exhibit A

3.1 Equipment. Upon issuance of NTP for Stage 2 ("Stage 2 NTP"), Equipment Supplier agrees to fabricate and deliver the Equipment in accordance with the approved shop drawings developed during Stage 1, and pursuant to the Specifications and Drawings (collectively, the "Approved Design"). The Equipment, and all components thereof, shall be new and unused and of the current production year.

3.2 Delivery. Equipment Supplier shall deliver the Equipment near the existing WWTF site, 700 NW 7th Avenue, John Day, Oregon 97845, at such time or times as set forth on the schedule attached hereto as Exhibit "A" and incorporated herein by reference, and in accordance with any additional schedules agreed upon in writing by the Parties. The Equipment shall be packed and transported in accordance with good commercial practice to insure against damage from weather and/or transportation. No charge shall be made for packing, crating, drayage or other similar costs. Equipment Supplier shall be fully responsible for the Equipment and bear all risk of loss or damage until the Equipment is delivered and accepted by the Contractor and the Owner.

3.3 Acceptance. The Equipment shall be received subject to the Owner's inspection and right of rejection. The Equipment shall not be considered accepted until inspection, testing and/or use of the Equipment is found to be in accordance with the Approved Designs and the Specifications. Final inspection of the Equipment shall be at the location specified herein, unless otherwise agreed in writing. If the Equipment is found at any time to be defective in material or workmanship, or otherwise not in conformance with the Specifications, the Owner shall have the right, in addition to any other rights which it may have under warranties or otherwise, to reject the Equipment in whole or in part.

3.4 Equipment Installation Assistance, Startup, Testing and Training. Following delivery and acceptance of the Equipment, Equipment Supplier shall coordinate with the Contractor to provide assistance to the Contractor with the Contractor's installation of the Equipment. In addition, Equipment Supplier shall provide all startup, testing and training required by the Owner for the Project as further specified in the Specifications. The cost of all coordination efforts are included in the lump sum prices for Stage 2 as set forth in the Work and Milestone Schedule and this Agreement.

Article 5. Contract Time

5.1 Time of Performance: In accordance with the Specifications, the Equipment Supplier further agrees to plan the Work and to prosecute it with diligence and shall commence the Work within five (5) calendar days after the date established in the NTP from the Owner, and shall meet the completion dates in Exhibit "A", Work and Milestone Schedule.

C # 5

5.2 The Parties recognize that time is of the essence of this Agreement and that the Owner will suffer financial loss if the Stage 1 and Stage 2 Work is not completed within the times specified in Exhibit "A", plus any extensions thereof allowed for a force majeure event, or agreed upon by the Parties.

5.3 As used herein, “force majeure event” shall mean an event that prevents Equipment Supplier from completing the Work within the times specified in this Agreement and that is beyond the reasonable control of Equipment Supplier. Such delays include, but not are not limited to, acts or neglect by Owner, acts or neglect of other contractors performing other work as contemplated in this Agreement, fires, floods, epidemics, abnormal weather conditions, or acts of God. Delays attributable to and within the control of a subcontractor or material supplier to the Equipment Supplier shall be deemed to be delays within the control of Equipment Supplier. An extension of time for a force majeure event shall be for the period of the enforced delay and shall commence to run from the time of the commencement of the event, if notice by Equipment Supplier is sent to the Owner within seven (7) calendar days of the commencement of the force majeure event. In the event that a Force Majeure event persists for more than sixty (60) consecutive days, the Parties shall mutually agree in good faith upon any necessary adjustments to this Agreement. In the event that a Force Majeure event persists for more than one hundred and twenty (120) consecutive days, either Party may terminate this Agreement and neither Party shall have any further liability to the other Party with respect to any obligations hereunder except for Equipment Supplier’s warranty obligations pursuant to Article 7 with respect to Equipment that has been delivered prior to the occurrence of the force majeure event and any obligations that expressly survive termination of this Agreement.

Article 6. Compensation

6.1 In consideration of the agreements herein made by the Owner and the sums of money to be paid to the Equipment Supplier by the Owner in the manner and form as provided in the Contract Documents, the Equipment Supplier agrees to furnish all labor, tools, appliances, equipment, plant and transportation, and any and all other expenses necessary or incidental to the performance of the Work as specified or shown in the Contract Documents including such alternates and additional bid items, as listed.

6.2 Payment Schedule. Owner shall pay Equipment Supplier the total lump sum amount for satisfactory completion of Stage 1 of the Work and Contractor shall pay the Equipment Supplier the total lump sum amount for satisfactory completion of Stage 2 of the Work in accordance with the Contract Documents, as specified below (“Contract Price”). No payment shall be made for a Phase of Work, or any portion thereof, unless and until a NTP for that Phase of Work has been issued by the Owner (for Stage 1) or Contractor (for Stage 2).

A. For all Stage 1 Work, a Lump Sum of:

$_____
(Price in Figures)

_____
(Price in Words)

B. For all Stage 2 Work, a Lump Sum of:

$_____
(Price in Figures)

_____
(Price in Words)

6.3 General Payment Terms. Terms of payment, are net thirty (30) days, less any applicable retention, after receipt of invoice, or completion of applicable Progress Milestones. Final payment shall be made by the Owner after Equipment Supplier has satisfied all contractual requirements. Payment of invoices shall not constitute acceptance of Equipment.

6.4 Milestone Payments. If Progress Milestones have been specified in Exhibit "A," then payments for the Equipment and Work shall be made as the requirements of such Progress Milestones are met. Progress payments for the Equipment/Work shall made by Owner upon proper application by Equipment Supplier during the progress of the Work and according to the terms of payment as specified in Exhibit "A." Equipment Supplier's progress billing invoice will include progress payments due for the original scope of work and changes. Each "Item for Payment" shown in Exhibit "A" and each change order will be itemized on the invoice. Invoices for cost plus work, whether part of Exhibit "A" or a change order, must have subcontractor and/or supplier invoices attached to Equipment Supplier's invoice. Other format and support documents for invoices will be determined by Owner in advance of the first invoice cycle.

6.6 Right to Withhold. Payments otherwise due may be withheld by Owner on account of defective Work not remedied, liens or other claims filed, reasonable evidence indicating probable filing of liens or other claims, failure of Equipment Supplier to make payments properly to its subcontractors or for material or labor, the failure of Equipment Supplier to perform any of its other obligations under the Agreement, or to protect the Owner against any liability arising out of Equipment Supplier's failure to pay or discharge taxes or other obligations. If the causes for which payment is withheld are removed, the withheld payments will be made promptly. If the said causes are not removed within a reasonable period after written notice, the Owner may remove them at Equipment Supplier's expense.

6.7 Terms for Final Payment. Payment of the final payment will be made by Owner or Contractor upon:

i. Submission of an invoice for satisfactory completion of the requirements of a Milestone as defined in Exhibit "A" and in the amount associated with the Milestone;

ii. Written acceptance of the Equipment and all Work by the Owner;

iii. Delivery of all drawings and specifications, if required;

iv. Delivery of executed full releases of any and all liens arising out of this Agreement; and

v. Delivery of an affidavit listing all persons who might otherwise be entitled to file, claim or maintain a lien of any kind or character, and containing an averment that all of the said persons have been paid in full.

6.8 Acceptance by Equipment Supplier of payment of the final Progress Milestone payment pursuant to this Section will constitute a waiver, release and discharge of any and all claims and demands of any kind or character which Equipment Supplier then has, or can subsequently acquire against the Owner, its successors and assigns, for or on account of any matter or thing arising out of, or in any manner connected with, the performance of this Agreement. However, payment for the final Progress Milestone by the Owner will not

constitute a waiver, release or discharge of any claims or demands which the Owner then has, or can subsequently acquire, against Equipment Supplier, its successors and assigns, for or on account of any matter or thing arising out of, or in any manner connected with, the performance of this Agreement.

6.9 Federal, State and Local Taxes. All prices stated herein include, unless otherwise specified, all Federal, State or local taxes that may be levied or assessed as a result of this Agreement, or are otherwise applicable to this Agreement.

6.10 Change in Scope of Work. Any change in the scope of the Work, method of performance, nature of materials or price thereof, or any other matter materially affecting the performance or nature of the Work shall not be paid for or accepted unless such change, addition or deletion is approved in writing by a valid change order executed by the Owner. Should Equipment Supplier request a change order due to unforeseen circumstances affecting the performance of the Work, such request shall be made within five (5) business days of the date such circumstances are discovered or shall waive its right to request a change order due to such circumstances. If the Parties cannot agree on any change in price required by such change in the Work, the Owner may direct the Equipment Supplier to proceed with the performance of the change on a time and materials basis.

Article 7. Warranty

C #2

7.1 General Warranty. In addition to all warranties which may be provided by law, Equipment Supplier warrants that the Equipment delivered hereunder shall, (a) be free from defect of material or workmanship and conform strictly to the specifications, drawings, or sample specified or furnished; (b) conform to drawings, plans, specifications, samples or other descriptions furnished, specified, accepted or approved by the Owner; and (c) be merchantable and fit for the purposes intended. The warranty shall be for a period of one (1) year, or such longer period as provided by a manufacturer's warranty or as agreed to by Equipment Supplier and the Owner, from the date of Final Acceptance of the Project under the future contract between Owner and Contractor. "Project Acceptance" means the point in time when all of the conditions identified in the future contract scope of work between the Owner and Contractor have been met. This warranty shall survive any inspection, delivery, acceptance, or payment by the Owner of the Equipment. Equipment Supplier, at its own expense, shall repair or replace, at the option of the Owner, any defective Equipment within one (1) week after receipt of notice from Owner. In the event that Equipment Supplier repairs or replaces any defective Equipment in accordance with this Section 7.1, the warranty period for such repaired or replaced Equipment shall extend an additional 12 months from the date of repair or replacement. Equipment Supplier also warrants that the Equipment is free and clear of all liens and encumbrances whatsoever, that Equipment Supplier is conveying good and marketable title to same, and that Equipment Supplier owns or has a valid license for all of the proprietary technology and intellectual property incorporated within the Equipment. Equipment Supplier agrees to indemnify, defend and hold the Owner harmless against any and all third-party claims resulting from the breach or inaccuracy of any of the foregoing warranties.

Article 8. Accounting, Inspection and Audit

8.1 Records. Equipment Supplier shall keep and shall preserve for four (4) years after acceptance of the Equipment, accurate and detailed records of all ledgers, books of

account, invoices, vouchers, cancelled checks, and other documents or records evidencing or relating to the scope of this Agreement and disbursements charged to the Owner under this Agreement (collectively, "Books and Records"). Any and all Books and Records must be maintained in accordance with generally accepted accounting principles and must be sufficiently complete and detailed so as to permit an accurate evaluation of the services provided by Equipment Supplier under this Agreement. During such four (4) year period, Equipment Supplier shall give the Owner and its agents, during normal business hours, access to such Books and Records. The Owner and its agents shall have the right to make copies of any of the said Books and Records.

8.2 Custody. Where the Owner has reason to believe that any of the Books and Records required to be maintained by this Article 8 may be lost or discarded due to dissolution or termination of Equipment Supplier's business, the Owner may, by written request, require that custody of such Books and Records be given to a person or entity mutually agreed upon and such Books and Records thereafter shall be maintained by such person or entity at Equipment Supplier's expense. Access to the Books and Records shall be granted to the Owner and its representatives.

Article 9. Termination

Termination. The Owner may terminate this Agreement, in whole or in part, with or without cause, upon ten (10) days written notice to Equipment Supplier. Upon receipt of the termination notice, Equipment Supplier shall promptly stop work unless the notice directs to the contrary. In addition, the Owner may determine not to issue an NTP for Stage 2, and no guarantee is made to Equipment Supplier that NTP 2 will be issued. In the event the Owner renders a written notice of termination to Equipment Supplier, Equipment Supplier shall be entitled to compensation for all services properly rendered prior to the effective date of the notice and all further services set forth in the notice. The Owner shall be entitled to reimbursement for any compensation paid in excess of services rendered and shall be entitled to withhold compensation for defective Work or other damages caused by Equipment Supplier. Pre-payments for Stage 2 work shall be refunded at the Owner's request if Stage 2 work is not authorized. Equipment Supplier acknowledges the Owner's right to terminate this Agreement and the Owner's right not to issue NTP for Stage 2, as provided in this Article 9, and hereby waives any and all claims for damages that might arise from either of the foregoing. Equipment Supplier shall deliver to the Owner and transfer title (if necessary) to all completed Work, and Work in progress including drafts, documents, plans, forms, maps, products, graphics, computer programs and reports. The Owner shall not be liable for any costs other than the charges or portions thereof which are specified herein. Equipment Supplier shall not be entitled to payment for unperformed Work and shall not be entitled to damages or compensation for termination of Work.

C # 3

Article 11. Project Management

11.1 Representative of Supplier.

_____ ("Equipment Supplier's Representative") is hereby designated as the principal and representative of Equipment Supplier authorized to act on its behalf with respect to the Work and services specified herein and to make all decisions in connection herewith. Equipment Supplier shall not substitute Equipment Supplier's Representative without first notifying the Owner in writing of Equipment Supplier's intent. The Owner shall have the right to review the qualifications of said substitute. If the Owner determines said substitute Equipment Supplier's Representative is unacceptable, Equipment Supplier shall submit alternate candidates until the Owner determines that substitute Equipment Supplier's Representative is acceptable.

11.2 Representative of Owner. Keller Associates, Inc. is hereby designated as the representative of the Owner and except as otherwise provided herein authorized to act on its behalf with respect to the Work and services specified herein and make all decisions in connection therewith.

11.3 Standard of Care. Equipment Supplier shall perform the Work under this Agreement in a skillful and competent manner, consistent with the standard generally recognized as being employed by professionals in the same discipline in the State of Oregon. Equipment Supplier represents and maintains that it is skilled in the professional calling necessary to perform the Work. Equipment Supplier warrants that all employees and subcontractors shall have sufficient skill and experience to perform the Work assigned to them. Equipment Supplier represents that it, its employees and subcontractors have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Work and that such licenses and approvals shall be maintained throughout the term of this Agreement. Equipment Supplier shall perform, at its own cost and expense and without reimbursement from the Owner, any work necessary to correct errors or omissions which are caused by the Equipment Supplier's failure to comply with the standard of care provided for herein, and shall be fully responsible to the Owner for all damages and other liabilities provided for in the indemnification provisions of this Agreement arising from the Equipment Supplier's errors and omissions.

11.4 Laws and Regulations. Equipment Supplier shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Work, including all Cal/OSHA requirements, and shall give all notices required by law. Equipment Supplier shall be liable for all violations of such laws and regulations in connection with Work. If the Equipment Supplier performs any work knowing it to be contrary to such laws, rules and regulations and without giving written notice to the Owner, Equipment Supplier shall be solely responsible for all costs arising therefrom. Equipment Supplier shall defend, indemnify and hold the Owner, its officials, directors, officers, employees and agents free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

Article 12. Insurance

12.1 Insurance. Equipment Supplier agrees to procure and maintain, at Equipment Supplier's expense all insurance specified in Exhibit "B" attached hereto and by this reference

incorporated herein. Equipment Supplier shall require all subconsultants to carry the same policies and limits of insurance that the Supplier is required to maintain pursuant to this Article, unless otherwise approved in writing by the Owner, and shall furnish separate certificates and endorsements for each subcontractor.

12.2 Failure to Procure and Maintain Insurance. If Equipment Supplier fails or refuses to procure or to maintain the insurance as required by this Agreement or fails or refuses to furnish the Owner with required proof that the insurance has been procured and is in force and paid for, the Owner shall have the right, at the Owner's election and upon ten (10) calendar days' notice to Equipment Supplier, to terminate this Agreement or procure and maintain such insurance. The premiums paid by the Owner shall be treated as an amount due from Equipment Supplier with interest at the rate of ten percent (10%), to be paid on the first (1st) day of the month following the date on which the premiums were paid. The Owner shall have the right to offset any amounts the Owner pays hereunder with amounts due Equipment Supplier for services rendered pursuant to this Agreement. The Owner shall give prompt notice of the payment of such premiums, stating the amounts paid and the names of the insurer or insurers, and interest shall run from the date of the notice.

Article 13. Indemnification

C # 4

13.1 To the fullest extent permitted by law, the Equipment Supplier shall indemnify and hold harmless the Owner, the Owner's Representative, and Contractor and each of their agents, consultants, officers, employees, and shareholders from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, caused in whole or in part, or arising out of, connected with, or resulting from the performance of the Work, regardless of whether or not such liability, claim, damage, loss or expense was caused in part by any negligent act or omissions, whether active or passive, by a party indemnified hereunder. The Equipment Supplier stipulates that this provision has been negotiated in accordance with applicable law to be fully enforceable.

13.2 The obligation of the Equipment Supplier under this indemnity and hold harmless agreement shall not apply to liability for damages arising from the sole negligence or willful misconduct of the Owner, the Owner's Representative, or the Contractor, or their agents, consultants, employees, officers, shareholders or independent contractors (other than the Equipment Supplier).

13.3 The Equipment Supplier 's liability to the Owner, Owner's Representative, and Contractor under this indemnification clause shall not be limited by any legal limitation on the amount or type of damages, compensation or benefits payable under workers' compensation acts, disability benefit acts or other employee benefit acts.

13.4 The Equipment Supplier's liability insurance shall provide coverage for the Equipment Supplier's obligations under this indemnification clause.

Article 14. General Provisions

14.1 Notices. All notices permitted or required under this Agreement shall be given at the following address, or at such other address as the parties may provide in writing for this purpose:

OWNER:
City of John Day
Attention: Melissa Bethel
450 E Main Street, John Day, OR 97845
bethelm@grantcounty-or.gov

SUPPLIER:
Attention: Insert Name
[**INSERT ADDRESS**]
[**INSERT E-MAIL**]

The Parties may designate, in writing, other individuals to whom notice is to be given. Notices shall be deemed to be received upon personal delivery to the addresses above; if sent by overnight delivery, upon delivery as shown by delivery service records; if by United States Postal Service, five (5) days after deposit in the mail.

14.2 Notification. In the event of a problem or potential problem that could impact the quality or quantity of Work, services or the level of performance under this Agreement, the Equipment Supplier shall, within one (1) business day of actual knowledge of the problem or potential problem, notify the Owner in writing and by telephone.

14.3 Separate Contracts. Equipment Supplier understands that this is not an exclusive Agreement and that the Owner shall have the right to negotiate with and enter into separate contracts with others providing the same or similar services as those provided by Equipment Supplier as the Owner desires.

14.4 Disputes. If any dispute should arise between the Parties concerning the performance of this Agreement, the payments to be made, or the manner of accomplishment of the Work, Equipment Supplier shall nevertheless proceed to perform the Work as directed by Owner pending settlement of the dispute.

14.5 No Waiver. The fact that the Owner has made payment under this Agreement shall not be interpreted so as to imply the Owner has inspected, approved or accepted the Work which has been performed by Equipment Supplier. No delay or omission in the exercise of any right or remedy by the non-defaulting Party on any default shall impair such right or remedy or be construed as a waiver. A Party's consent to or approval of any act by the other Party requiring the Party's consent or approval shall not be deemed to waive or render unnecessary the other Party's consent to or approval of any subsequent act. Any waiver by either Party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of the Agreement.

14.6 Assignment and Subcontractors. Equipment Supplier shall not assign or subcontract any portion of the work to be performed under this Agreement or any of the rights or obligations under this Agreement, without the prior written consent of the Owner, which consent may be withheld in the Owner's sole and absolute discretion. Any attempted assignment in violation of the provisions of this paragraph shall be void. Subject to the foregoing, this Agreement shall be binding upon the heirs, administrators, successors and assigns of the Owner and Equipment Supplier.

14.7 Permitted Assignment by Owner. The Owner may assign the Stage 2 Work to Contractor, and Equipment Supplier agrees to accept such assignment, and to honor all terms of this Agreement, and substitute "Contractor" for the "Owner", as appropriate.

14.8 Independent Contractor. Equipment Supplier shall act as an independent contractor in the performance of this Agreement and in no respect shall Equipment Supplier be considered an agent or employee of the Owner. No provisions of this Agreement shall be intended to create a partnership or joint venture between Equipment Supplier and the

Owner and neither Party shall have the power to bind or obligate the other Party, except as expressly set forth in this Agreement.

14.9 Non-Liability of Owner Officials and Employees. No official or employee of the Owner shall be personally liable to the Equipment Supplier in the event of any default or breach by the Owner or for any amount which may become due to the Equipment Supplier or for any breach of the terms of this Agreement.

14.10 Conflict of Interest. The Equipment Supplier warrants that it has not paid or given and will not pay or give any third party any money or other consideration for obtaining this Agreement.

14.11 Confidential Information. All information gained or work products produced by Equipment Supplier in the performance of this Agreement will be considered confidential, unless such information is in the public domain. Equipment Supplier shall not release or disclose any such information or Work Product to persons or entities other than the Owner without the prior written consent of the Owner, except as otherwise required by law. Equipment Supplier shall promptly notify the Owner should Equipment Supplier, or its representatives be served summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, requests for admissions or other discovery request or court order from any third party regarding this Agreement and the services performed under this Agreement.

14.12 Amendment. This Agreement may not be amended except by a subsequent writing which is signed by the Parties.

14.13 Governing Law, Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon. The Parties agree that any action or proceeding to enforce or relating to this Agreement shall be brought exclusively in the federal or state courts located in Grant County, Oregon, and the Parties hereto consent to the exercise of personal jurisdiction over them by any such courts for purposes of any such action or proceeding.

14.14 Attorneys' Fees and Costs. If any action in law or equity, including an action for declaratory relief, is brought to enforce or interpret the provisions of this Agreement, each Party shall pay its own attorneys' fees.

14.15 Severability. If any provision of this Agreement is found by a court of competent jurisdiction to be void, invalid or unenforceable, then the Parties agree that such invalidity or unenforceability shall have no effect whatsoever on the balance of this Agreement.

14.16 Counterparts. This Agreement may be signed and delivered in any number of counterparts, each of which, when signed and delivered, shall be an original, but all of which shall together constitute one and the same Agreement.

14.17 Entire Agreement. This Agreement contains the entire agreement between the Parties with respect to the subject matter of this Agreement and any agreement or representation with respect to the same or the obligations of either Party with respect to the same which is not expressly provided in this Agreement or in a written document which is signed by the Party to be charged, shall be null and void.

14.18 Authority to Execute. Each Party represents and warrants to the other Party that all necessary action has been taken by such Party to authorize the undersigned to execute this Agreement and to bind it to the performance of its obligations hereunder.

14.19 Binding on Successors. All representations, covenants and warranties set forth in this Agreement, by or on behalf of, or for the benefit of any or all of the Parties hereto, shall be binding upon and inure to the benefit of such Party, its successors and assigns.

14.20 Survival. All rights and obligations hereunder that by their nature are to continue after any expiration or termination of this Agreement, including, but not limited to, the indemnification obligations, shall survive any such expiration or termination.

14.21 Third Party Rights. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than Owner and the Supplier.

IN WITNESS WHEREOF, the Owner has caused these presents to be executed in triplicate by its officers, thereunto duly authorized, and the Equipment Supplier has subscribed same, all on the day and year first above written. One counterpart each has been delivered to the Owner, the Equipment Supplier and the Owner's Representative.

OWNER	**[INSERT SUPPLIER NAME]:**
By: City of John Day	By: _____ (Authorized Representative of Supplier)
Printed Name: _____	Printed Name: _____
Title: _____	Title: _____
Dated: _____	Dated: _____

ATTEST:

By _____
(Signature)

Name _____

Title _____
(Type or Print)

Address for giving notices _____

_____

_____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

OREGON ALL-PURPOSE ACKNOWLEDGEMENT

State of _____

County of _____

On _____, before me, _____,
Name and Title of Officer

personally appeared

_____,
Name of Signer(s)

☐ personally known to me - **OR** - ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is(are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

_____
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document

DESCRIPTION OF ATTACHED DOCUMENT
Title of Type of
Document:_____

Document Date: _____ Number of
Page:_____

Signers) Other than Named Above:

_____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____ Signer's Name:

_____

☐ Individual	☐ Individual
☐ Corporate Officer	☐ Corporate Officer
☐ Title(s):_____	☐ Title(s):
☐ Partner ☐ Limited ☐ General	☐ Partner ☐ Limited ☐ General
☐ Attorney-in-Fact	☐ Attorney-in-Fact
☐ Trustee	☐ Trustee
☐ Guardian or Conservator	☐ Conservator
☐ Other_____	☐ Other_____
☐ Signer is Representing:	☐ Signer is Representing:

END OF SECTION 00 52 00

Aqua-Aerobic Systems, Inc.

Exceptions / Clarifications Document: 10/15/25

Project: JOHN DAY WWTP OR

Please see the below clarifications for the John Day OR project. Please let us know if there are any questions.

1) **Reference: 00 52 00 - Agreement -**
SBR Equipment Procurement Agreement

Licenses, permits, requirements, etc. associated with a contractor.

Aqua's Exception/Clarification
We clarify that Aqua-Aerobic Systems, Inc. (hereafter AASI) is a manufacturer/seller of equipment and goods. AASI is not a licensed Contractor or Subcontractor. As an equipment supplier, Aqua-Aerobic Systems, Inc. will be bound to the specification sections that pertain specifically to equipment design, materials of construction, testing, supervision and electrical sections that pertain to Aqua-Aerobic Systems' equipment. Generally, the plans and specifications contain "boiler-plate" items that do not pertain to equipment suppliers and/or items that are the responsibility of the General Contractor.

2) **Reference: 00 52 00 - Agreement -**
SBR Equipment Procurement Agreement
Article 7 - 7.1 General Warranty, page 6

This warranty shall survive any inspection, delivery, acceptance, or payment by the Owner of the Equipment. Equipment Supplier, at its own expense, shall repair or replace, at the option of the Owner, any defective Equipment within one (1) week after receipt of notice from Owner.

Aqua's Exception/Clarification
Because all spare and replacement parts cannot be maintained in inventory, we clarify Equipment Supplier shall begin the cure within one (1) business week after receipt of written notice from Owner. Upon receipt of the written notice, Equipment Supplier will provide a written timeline for repair and replacement of any defective equipment/parts.

3) **Reference: 00 52 00 - Agreement -**
SBR Equipment Procurement Agreement
Article 9. Termination, page 00 52 00 - 7

Termination for convenience

Aqua's Exception/Clarification
We clarfy: If termination is for convenience, such notice shall be given to the Aqua-Aerobic Systems in writing. In the event the Purchaser requests cancellation for convenience in accordance herewith, Aqua-Aerobic Systems shall be entitled to receive from Purchaser reimbursement for all of the direct costs incurred by Aqua-Aerobic Systems prior to the receiving date of the notice of cancellation, plus an equitable negotiated amount for overhead and profit, but in no event shall such amounts due hereunder exceed the total price.

4) **Reference: 00 52 00 - Agreement -**
SBR Equipment Procurement Agreement
Article 13. Indemnification, page 00 52 00 - 9

13.1 To the fullest extent permitted by law, the Equipment Supplier shall indemnify and hold harmless the Owner, the Owner's Representative, and Contractor and each of their agents, consultants, officers, employees, and shareholders from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, caused in whole or in part, or arising out of, connected with, or

resulting from the performance of the Work, regardless of whether or not such liability, claim, damage, loss or expense was caused in part by any negligent act or omissions, whether active or passive, by a party indemnified hereunder. The Equipment Supplier stipulates that this provision has been negotiated in accordance with applicable law to be fully enforceable.
13.2 The obligation of the Equipment Supplier under this indemnity and hold harmless agreement shall not apply to liability for damages arising from the sole negligence or willful misconduct of the Owner, the Owner's Representative, or the Contractor, or their agents, consultants, employees, officers, shareholders or independent contractors (other than the Equipment Supplier).

Aqua's Exception/Clarification
We clarify: In no event will the cumulative liability for damages, costs, penalties, or indemnities related in any manner to this purchase order exceed 100% of Equipment Supplier's contract price. Per item 13.2, we clarify "sole negligence or willful misconduct" to "negligence or misconduct".

5) **Reference: 00 52 00 - Agreement -**
SBR Equipment Procurement Agreement
Exhibit A to the Agreement
Work and Milestone Schedule, page 00 52 10 - 1

A. Stage 1 NTP is expected to be issued within 30 days of Notice of Award. The Equipment Supplier shall provide all initial shop drawing submittals within 30 business days following the Stage 1 NTP. The Equipment Supplier shall provide any required resubmittal documents within 6 business days of receiving comments from the Owner/Owner's Representative.

B. The expected timeframe for issuance of Stage 2 NTP is 3rd Quarter 2026. Stage 2 NTP is expected to be issued by the Contractor to the Equipment Supplier. Equipment Supplier shall complete fabrication of the Equipment within 180 calendar days of receipt of a purchase order from the Contractor during Stage 2. Equipment Supplier shall coordinate delivery of the equipment to the new WWTF with Contractor.

C. The Proposal price for Stage 2 shall be the guaranteed price for the Stage 2 Work (Item 2.1) provided NTP Stage 2 is issued at any point between the Proposal opening date and September 30, 2026. If the Stage 2 NTP is issued following that date, the Stage 2 Work lump sum cost, less any prepayment towards Stage 2 made by the Owner, may increase at the same rate as the escalation factor for inflation based on the ENR Index from October 1, 2026 to the actual date of the Stage 2 Work NTP.

Aqua's Exception/Clarification
While Aqua-Aerobic Systems, Inc. (hereafter AASI) maintains a reputation for timely preparation of engineer's submittals and complete equipment shipment, the schedules are affected by finalization of the design basis for preparation of engineer's submittals, our receipt of engineer's submittal approval and authorization to release for manufacture. This equipment is fabricated specifically for this project and shipment of the equipment is per the timeline provided within our proposal package. Accordingly, any right to damages for time is of the essence will only apply if; 1) Buyer allows for our quoted lead-time(s) for equipment fabrication and shipment and 2) damages are assessed due to a delay caused by AASI. In no case shall AASI be responsible for damages if cause of delay is a result of force majeure condition.

Regarding acceptance of the equipment, we clarify: All prices and all shipments of goods are F.O.B. Jobsite City Location. It is the responsibility of the Buyer to unload shipments and utilizing the packing list and bill of lading provided with the shipment notate shortages/damages upon receipt of the

shipments and notify Aqua-Aerobic in writing within seven (7) days of the shortages/damages to facilitate filing of a freight claim. Delivery of the goods sold hereunder by the carrier shall be deemed delivery to Buyer, and upon such delivery, title to such goods and risk of loss or damage shall be upon Buyer.

6) Reference: Assignment of Contract to Contractor

Assignment

Aqua's Exception/Clarification

ASSIGNMENT OF CONTRACT: We clarify the mutually agreed-upon terms and conditions will apply to the assignment with the following Seller stipulations:
- Credit approval for the Contractor/Assignee is completed, reviewed, and approved by Aqua-Aerobic Systems, Inc. (hereafter Seller).
- The Assignment occurs prior to Seller's shipment of any equipment.
- A scan of the fully-executed Labor and Material Payment Bond(s) providing protection to the Seller is received from the Contractor/Assignee in order for Seller to confirm bond rights.
- Payment Terms are clearly defined prior to the "Assignment" including identifying the Party responsible for each event within the Milestone Payments table.
- The tax status of each of these payments is confirmed to the Seller.
- Confirmation is received by Seller as to whether any tax exemption is part of the Assignment or whether taxes will apply to the Contractor/Assignee and/or Project Owner.

Once this information is confirmed, Seller and the Project Owner can then proceed with the Assignment. If these requirements are not able to be confirmed, then the Assignment will not be granted.

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

Equipment List: 180987

TO:	**John Day, City of** **450 East Main Street** **John Day** **Oregon 97845** **USA**	**PROJECT:**	**JOHN DAY WWTP OR**
		BID DATE:	**October 15, 2025**
ATN:	**Melissa Bethal**	**DATE:**	**October 15, 2025**
CC:	**Goble Sampson Associates, Inc / ph#: 425/392-0491 / fx#: 425/392-9615** **Douglas Allie** **Aqua-Aerobic Systems, Inc.** **Scott Kelly / SKelly@aqua-aerobic.com**		

The following Notes apply to Aqua-Aerobic Systems' proposal:

- We are pleased to quote, for acceptance within 45 days of the bid date, prices and terms on equipment listed below.
- Equipment will be furnished by Aqua-Aerobic Systems with unloading of goods, civil work, and installation by the Buyer.
- Reference: Specification Section 46 53 53 - Sequencing Batch Reactors.

AquaSBR

Influent Baffles

2 Influent Baffle(s) will be provided as follows:

- 4x4 304 stainless steel baffle panels.
- 304 stainless steel supports.
- 304 stainless steel mounting hardware.
- 304 stainless steel anchors.

Mixers

2 AquaDDM Direct Drive Mixer(s) will be provided as follows:

- 15 HP Model FSS Endura® Series AquaDDM® Mixer. Motor base and intake volute assemblies will be of 304 stainless steel. Float is fiber reinforced polyester skin (FRP), filled with closed cell polyurethane foam. Propeller is cast stainless steel. Motor will be premium efficient, TEFC, volt, 3 phase, 60 hertz, 900 RPM with 1.15 service factor and Class F nonhygroscopic insulation. Motor shaft is one-piece 17-4 PH stainless steel.
Adder for 15HP explosion proof mixer motor.
- Single phase, normally closed, motor winding thermostat(s).
- Class I Division II nameplate(s).

Mixer Mooring

2 Mixer pivotal mooring assembly(ies) consisting of:

- 304 stainless steel pivotal mooring arm(s).
- #10 AWG four-conductor electrical service cable(s).
- Electrical cable strain relief grip(s), 2 eye, wire mesh.

2 Decanter Assembly(ies) consisting of:

- 10x9 Aqua-Aerobics decanter(s) with fiberglass float, 304 stainless steel weir, 304 stainless steel restrained mooring frame, and painted steel power section with #14-10 conductor power cable wired into a NEMA 4X stainless steel junction box with terminal strips for the 115 volt, single phase, 60 hertz actuator and limit switches.
- Aluminum band clamp heater integral to the decanter power section(s).
- Decant pipe(s) with integral elbow, 304L stainless steel.
- 16 inch gasket kit(s).
- 16 inch diameter 304 stainless steel flanged flexible joints.
- Stainless steel anchors.
- 304 stainless steel linear mooring post.
- 304 stainless steel top mooring post supports.
- 304 stainless steel bottom mooring post supports
- 16 inch electrically operated butterfly valve(s) with ANSI Class 125# flanged end ASTM A-126 Class B cast iro body, EPDM seat, cast iron disk with 316 stainless steel edge, 304 stainless steel shaft assembled and tested with a Limitorque, single phase actuator.

2 Valve Extension(s) will be provided as follows:

- Valve extension(s) stainless steel

Transfer Pumps/Valves

4 Submersible pump assembly(ies) consisting of the following items:

- Flygt Model 3069, 2.4 HP, 3 phase, 60 cycle submersible pump(s) with painted cast iron pump housing, discharg elbow and multi-conductor electrical cable.
- 3 inch diameter manual eccentric plug valve(s) with cast iron body, welded nickel seat, flanged end style, coate cast iron plug, stainless steel bearings, and lever operator.
- 3 inch diameter APCO check valve
- Stainless steel upper guide bar bracket(s)
- Galvanized guide bar(s)
- Stainless steel intermediate support bracket(s)
- Stainless steel lifting chain(s)
- Stainless steel anchors

2 Telescoping Valve(s) will be provided as follows:

- Manual 6" Telescoping Valve

Retrievable Fine Bubble Diffusers

6 Retrievable Fine Bubble Diffuser Assembly(ies) consisting of:

- 25 diffuser tubes consisting of two flexible EPDM porous membrane sheaths mounted on a rigid support pipe with 304 stainless steel band clamps.
- 304 stainless steel manifold weldment.
- 304 stainless steel leveling angles.
- 304 stainless steel leveling studs.
- Galvanized vertical support beam.
- Galvanized vertical air column assembly.
- Galvanized upper vertical beam and pulley assembly.
- Galvanized top support bracket.
- 3" EPDM flexible air line with stainless steel quick disconnect end fittings.
- 304 stainless steel threaded flange.

- 3 inch DeZurik manually operated butterfly valve(s) with lug style end, stainless steel body, stainless steel disk, PTFE seat, 17-4 stainless steel shaft with lever handle.
- Quick disconnect cam lock adapter.
- 304 stainless steel adhesive anchors.
- Galvanized steel brace angles.

1 Diffuser Electric Winch(es) will be provided as follows:

- Portable electric winch with 8 feet of electrical cable for connection to single phase, 60 hertz power supply rated for 12.6 full load amps. Power supply and electrical wiring for winch is to be provided by the purchaser.

Positive Displacement Blowers

3 Positive Displacement Blower Package(s), with each package consisting of:

- Kaeser Model EB 410CM blower(s). Each blower will include elevated base, 50HP 3 PH. 60Hz. Motor, V-belt drive with guard, inlet silencer with filter, discharge silencer, spring loaded relief valve, discharge check valve, flexible discharge connection, pressure and temperature gauge, 6" butterfly valve, and vibration isolators.
- Soundproof enclosure(s) fully assembled with powder coat finish, acoustic foam insulation, integral ventilation fan, and easy open access panels.
- Stainless steel anchors.

Level Sensor Assemblies

2 Pressure Transducer Assembly(ies) each consisting of:

- Pressure transducer(s).
- 304 stainless steel mounting bracket weldment(s).
- 304 stainless steel transducer mounting pipe weldment(s).
- Stainless steel anchors.

2 Level sensor assembly(ies) will be provided as follows:

- 304 stainless steel mast(s).
- 304 stainless steel float weights.
- Float switch(es).
- Stainless steel anchors.

2 Junction Box(es) for Level Controls with Intrinsically Safe Relays consisting of:

- NEMA 4X 304 stainless steel junction box(es).
- Intrinsically safe relay(s).
- Intrinsically safe analog barrier(s).

Instrumentation

2 Dissolved Oxygen Assembly(ies) consisting of:

- Hach LDO dissolved oxygen sensing probe. Sensor constructed of stainless steel. Probe includes electric cable.
- 304 stainless steel mounting bracket weldment(s).
- 304 stainless steel transducer mounting pipe weldment(s).
- Stainless steel anchors.

2 pH Sensor(s) will be provided as follows:

- Hach pHD sc digital differential pH sensor. Sensor constructed of PEEK material with the convertible body style. Sensor includes integral temperature monitoring sensor and electric cable.
- 304 stainless steel mounting bracket weldment(s).
- 304 stainless steel transducer mounting pipe weldment(s).
- Stainless steel anchors.

2 Process Controller(s) consisting of:
- Hach SC1000 probe module(s), in IP65 enclosure with corrosion resistant finish. Controller includes internal AC power supply, EEPROM memory back-up, and mounting kit for installing on basin handrail.
- Sun shield(s).

1 Process Control System will be provided as follows:
- Hach SC1000 graphical color touch-screen display module. Display module provided in IP65 enclosure and is fully portable for connectivity to any of the Hach SC1000 probe modules.
- FRP enclosure(s) for SC1000 Display.

Misc/Spare Parts

1 Set(s), Spare parts will be provided as follows:
- 1 Decanter linear actuator.
- 1 Decanter actuator limit switch.
- (1) Limit switch arm.
- Input card(s)
- Output card(s).
- Analog input card(s).
- Analog output card(s).
- Diffuser membrane kit(s).
- (1) Diffuser clamp installation tool.
- Diffuser membrane elements.
- Diffuser retainer ring.
- 1 Retainer ring wrench.

AquaSBR: Post-Equalization

Transfer Pumps/Valves

4 Submersible pump assembly(ies) consisting of the following items:
- Flygt Model NP-3127, 10 HP, 3 phase, 60 cycle submersible pump(s) with painted cast iron pump housing, discharge elbow and multi-conductor electrical cable.
- Pump will meet Class I, Division I, Group D requirements.
- 6 inch diameter manual eccentric plug valve(s) with cast iron body, welded nickel seat, flanged end style, coated cast iron plug, stainless steel bearings, and lever operator.
- Galvanized guide bar(s).
- Stainless steel anchors.
- Stainless steel lifting chain(s).
- Stainless steel upper guide bar bracket(s).

Fixed Coarse Bubble Diffusers

1 Fixed Coarse Bubble Diffuser Assembly(ies) consisting of:
- 304 stainless steel drop pipe(s).
- 304 stainless steel manifold(s) with connection to drop pipe and air distribution header(s).
- Minimum 3" diameter 304 stainless steel air distributor(s).
- 304 stainless steel piping supports with vertical supports, clamps, adjusting mechanism and anchor bolts.
- Coarse bubble diffuser assemblies.

Positive Displacement Blowers

1 Positive Displacement Blower Package(s), with each package consisting of:

- Kaeser Model CB 121 blower(s). Each blower will include elevated base, 15HP 3 PH. 60Hz. TEFC motor, V-bel V-belt drive with guard, inlet silencer with filter, discharge silencer, spring loaded relief valve, discharge check valve, and flexible discharge connection.
- Sound enclosure with sheet-steel construction, acoustic insulation, easy-access maintenance doors and an integral ventilation fan.
- 3 inch DeZurik manually operated butterfly valve(s) with lug style end, stainless steel body, stainless steel disk, PTFE seat, 17-4 stainless steel shaft with lever handle.
- Stainless steel anchors.

Level Sensor Assemblies

1 Sensor installation(s) consisting of:

- Pressure transducer(s).
- Stainless steel sensor guide rail weldment(s).
- PVC sensor mounting pipe(s).
- 1 1/2" Flexible hose.
- Top support(s).
- Stainless steel anchor kit(s).

1 Level sensor assembly(ies) will be provided as follows:

- 304 stainless steel mast(s).
- 304 stainless steel float weights.
- Float switch(es).
- Stainless steel anchors.

1 Junction Box(es) for Level Controls with Intrinsically Safe Relays consisting of:

- NEMA 4X 304 stainless steel junction box(es).
- Intrinsically safe relay(s).
- Intrinsically safe analog barrier(s).

Controls

Controls wo/Starters

- NEMA 12 panel enclosure suitable for indoor installation and constructed of painted steel.
- Air conditioner(s).
- Fuse(s) and fuse block(s).
- CompactLogix Processor
- Input Card(s)
- Output Card(s)
- Analog Input Card(s)
- Field Potential Distributor Module
  - Allen-Bradley 5069-FPD
- Uninterrupted power supply.
- PanelView Plus 7 15" color touch screen display(s).
- Control relay(s).
- 115 V power line filter(s).
- Power supply(s).
- Selector switch(es).
- Pilot light(s).
- GFI convenience outlet(s).
- Remote access Ethernet modem(s).
- Panel will be UL listed and labeled.

Engineering: AquaSBR

Engineering

1 Set(s) Documentation will be provided as described:

- Operation & Maintenance Manuals (English language) in electronic format.

1 Set(s) Documentation will be provided as described:

- Engineer's Approval Data (English language) in electronic format.

Supervision/Freight

Supervision/Freight Domestic

1 Supervision Services and Freight Package(s) will be provided as follows:

- 4 Day(s) On Site for INSTALLATION SUPERVISION
- 1 Trip(s) for INSTALLATION SUPERVISION
- 4 Day(s) On Site for MECHANICAL SUPERVISION
- 1 Trip(s) for MECHANICAL SUPERVISION
- 4 Day(s) On Site for ELECTRICAL SUPERVISION
- 1 Trip(s) for ELECTRICAL SUPERVISION
- FREIGHT TO JOBSITE

The Following General Notes apply to Aqua-Aerobic Systems' Proposal:

- THE CONSOLIDATED APPROPRIATIONS ACT of 2014: The goods proposed are in compliance with the American Iron and Steel (AIS) requirements of the Consolidated Appropriations Act of 2014 as mandated in EPA's State Revolving Fund Programs as of the date of this proposal.

- SCHEDULE: Schedule times are dependent on issuance of Purchase order with the following requirements: acceptable terms and conditions, guarantee of payment, all exceptions/clarifications provided have resolution and final drawings and specification sections have been provided to Aqua-Aerobic Systems.

We expect submittals to be completed and in transit to you within 8-10* weeks after receipt of order. We expect receipt of approved engineer's submittal with release for manufacture within 4-8 weeks of our transmittal of submittal data. We expect shipment of equipment (transit time excluded) to be approximately 16-22* weeks (or control panel/valve lead times, whichever is more) from our receipt of approved engineer's submittal data and release for manufacture. Schedules may be adjusted at time of order placement, depending upon existing order backlog.

*Weeks quoted are actual working weeks.

- Schedule changes due to supply chain disruption may impact the above quoted times. Aqua-Aerobic Systems will advise if/when any such disruption applies.

*Aqua-Aerobic Systems will be closed for the Christmas Holidays beginning approximately December 24, through approximately January 2nd.

*PRICE ESCALATION INDEX: Aqua-Aerobic Systems reserves the right to re-evaluate the pricing quoted prior to order acceptance if; 1) a purchase order is received after the validity date stated in this proposal or, 2) the lead times stated in this proposal are exceeded. Any pricing adjustments required shall be based on a published materials cost index specific to the materials proposed.

*TARIFF PRICE ESCALATION NOTE: This proposal excludes all tariffs, duties, import/export taxes, and any other government-imposed fees. As such, the proposed goods may be affected by the recent U.S. Government proposed tariffs on imported steel, aluminum and other commodities, including but not limited to reciprocal tariffs. Because of this, Aqua-Aerobic Systems reserves the right to adjust the pricing quoted prior to order acceptance. Any pricing adjustments required due to such impacts will be based on products or materials listed in the Harmonized Tariff Schedule of the United States (HTSUS) as published by the USITC.

*CONTROLS NON-DISCLOSURE / CONFIDENTIALITY AGREEMENT: If applicable, Aqua-Aerobic Systems will provide information relating to software documentation to control the treatment system supplied using Aqua-Aerobic Systems' proprietary and/or trade secret information subject to execution of an Aqua-Aerobic Systems' "Controls Non-Disclosure / Confidentiality Agreement".

*INTEGRAL DOCUMENTS: The following documents are an integral part of Aqua-Aerobic Systems' proposal:

1. All documents listed on Aqua-Aerobic Systems' proposal/bid package "Table of Contents" document dated October 15, 2025.

- Additional supervision services can be provided for an additional charge of $1750/day plus travel and living expenses.

The Following Mechanical and/or Electrical Notes apply to Aqua-Aerobic Systems' Proposal:

- Individual blowers are sized with a free air intake. Blowers attached to a common intake manifold or provided with inlet extensions must be evaluated for possible additional pressure and horsepower requirements. Blowers positioned inside a building must be provided with adequate louvered free air intake to prevent negative pressures which may cause poor performance and overheating.
- Blower discharge manifold and piping losses are assumed at 0.3 PSI for coarse bubble and 0.5 PSI for fine bubble from the blower termination flange to the diffuser assembly termination flange. Engineer to verify actual piping losses do not exceed the above. Inlet losses are assumed at 0.25 PSI for inlet silencer and a clean filter. No inlet losses have been assumed for inlet filter piping, and it is assumed that the filter is located on each blower package.
- Class I, Division II, Group D equipment is suitable for operation in the SBR basin, with ventilation is provided at a rate of 12 air exchanges per hour, or in accordance with NFPA Chapter 7. Ventilation is to be provided by the installing contractor/purchaser.
- In accordance with NFPA 820, the classified area envelope is defined as 18 inches above the top of the tank, 18 inches beyond the exterior wall, and 18 inches above grade extending 10 feet beyond the exterior wall.
- All electrically actuated valves are to be mounted outside of the classified area. Additional costs will be incurred if electric valve actuators are required to be mounted in the classified envelope.
- Valve and line sizes are to be verified by the engineer based on actual line losses.

- Electrical cables provided by Aqua-Aerobic Systems, Inc, as stated in our proposal, will terminate at the basin wall at the termination point as shown on the drawings or (if undefined) at the point nearest the powered equipment.
- Three phase motors will be 460 volt.
- Single phase motors will be 115 volt.

The Following Scope Exclusion Notes apply to Aqua-Aerobic Systems' Proposal:

- Materials and Services not specifically described/itemized in this proposal are not included in the quoted total price, and are to be supplied by the installing contractor/purchaser.
- Freeze protection may be required for outdoor installation in cold weather climates. All such protection, including but not limited to, heat tracing and insulation of pumps and piping, as well as protection against internal tank freezing, shall be provided and installed by the installing contractor.
- If basins with sloped floors are utilized, supply of minimum 4000 psi type grout pads beneath the proposed equipment (such as base plates, brackets, mooring posts, diffuser supports/racks, etc.) are required to provide for a level installation elevation for the equipment. Grout pads are not included in Aqua-Aerobics Systems' scope of supply or price, and are to be provided by the installing contractor/purchaser.
- Equipment vault(s) (if applicable) must be supplied with drain and/or sump.

SCOPE BY PURCHASER/CONTRACTOR:

*Note this is not intended as a complete listing and is provided as a courtesy.
- Unloading and storage.
- Provisions for equipment access.
- Concrete, handrail and all civil works.
- All air and process piping, spool pieces, supports, gaskets and hardware beyond Aqua-Aerobic Systems' equipment terminations.
- Interconnecting piping, wiring and installation.
- All flanges and/or unions in the piping to service the equipment.
- Motor starters and MCC (Motor Control Center), unless otherwise noted in this proposal.
- Electrical conduit, hardware, supports, attachment of cables, wiring and j-boxes (if any) between motors, electrical valves, instruments and the control panel.
- Installation/field wiring of the control panel(s) that ship loose.
- Electrical wiring and supply power.
- Concrete, volumes as required, to fill mooring posts.
- All costs associated with initial sludge seeding as require for startup, unless otherwise noted.

The Following Commercial Notes apply to Aqua-Aerobic Systems' Proposal:

- PROCESS GUARANTEE: A company backed process performance guarantee in accordance with the terms stated on Aqua-Aerobic Systems' process guarantee will be provided.
- PAYMENT AND PERFORMANCE BOND: A Payment and Performance Bond for 100% of the purchase price of the equipment and services as surety of Aqua-Aerobic Systems' performance of the contract will be provided.
- F.O.B. JOBSITE; TITLE AND RISK OF LOSS: All prices and all shipments of goods are F.O.B. Jobsite City Location. It is the responsibility of the Buyer to unload shipments and utilizing the packing list and bill of lading provided with the shipment notate shortages/damages upon receipt of the shipments and notify Aqua-Aerobic Systems in writing within seven (7) days of the shortages/damages to facilitate filing of a freight claim. Delivery of the goods sold hereunder by the carrier shall be deemed delivered to Buyer, and upon such delivery, title to such goods and risk of loss or damage shall be upon Buyer.
- PAYMENT TERMS: Subject to credit approval, guarantee of payment, and receipt of the Contractor's payment and performance bonds, the pay terms will be per Table 1 and 2. Proposal Price Schedule for Stage 1 and Stage 2. We clarify the 5% of total purchase price at time of Substantial Completion is not to exceed six (6) months from shipment of equipment whichever occurs first.
- SCOPE OF SUPPLY NOTE: Aqua-Aerobic Systems' scope of supply and pricing is as described in this proposal, including the listed Integral Documents and the terms and conditions of sale. Please refer to the proposal notes and notated drawings for equipment terminations and items not included in the proposal that are to be provided by the Buyer. Engineer’s submittal data will be prepared using these proposed goods and services, and the submittal approved by the Consulting Engineer will become an integral part of the scope of supply under the contract resulting from this offer. Any additions or deletions to the scope of supply will be presented as change orders.

- ASSIGNMENT OF CONTRACT: These mutually agreed-upon terms and conditions will apply to the assignmen with the following Seller stipulations:
- Credit approval for the Contractor/Assignee is completed, reviewed, and approved by Aqua-Aerobic Systems, Inc (hereafter Seller).
- The Assignment occurs prior to Seller's shipment of any equipment
- A scan of the fully-executed Labor and Material Payment Bond(s) providing protection to the Seller is received fro the Contractor/Assignee in order for Seller to confirm bond rights.
- Payment Terms are clearly defined prior to the "Assignment" including identifying the Party responsible for eac event within the Milestone Payments table.
- The tax status of each of these payments is confirmed to the Seller
- Confirmation is received by Seller as to whether any tax exemption is part of the Assignment or whether taxes wil apply to the Contractor/Assignee and/or Project Owner.

Once this information is confirmed, Seller and the Project Owner can then proceed with the Assignment. If these requirements are not able to be confirmed, then the Assignment will not be granted.

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

Process Design Report

JOHN DAY WWTP OR

Design# 180987

Option: Process Design

AquaSBR®

Sequencing Batch Reactor

October 15, 2025

Designed By: Nicholas Fortsas

6306 N. Alpine Rd Loves Park, IL 61111
(815) 654-2501 www.aqua-aerobic.com

Upstream Recommendations

- Neutralization is required ahead of the biological system if the pH is expected to fall outside of 6.5-8.5 for significant durations.

- Coarse screening and grit removal is recommended (by others) ahead of the biological system.

- Elevated concentration of hydrogen sulfide can be detrimental to both civil and mechanical structures. If anaerobic conditions exist in the collection system, steps should be taken to eliminate hydrogen sulfide prior to the treatment system.

- Fats, oils, and grease (FOG) removal may be necessary (by others) if the wastewater contains significant amounts of FOG. Historical data suggests levels less than 60 mg/l on a daily average basis (based on a 24 hour composite sample), along with a maximum of 90 mg/l is appropriate for biological treatment. If FOG levels above this are anticipated, please discuss with Aqua-Aerobic Systems to understand the impacts of elevated FOG on the system performance.

Flow Considerations

- The maximum flow, as shown on the design, has been assumed as a hydraulic maximum and does not represent an additional organic load.

Biological Process

- The decanter performance is based upon a free-air discharge following the valve and immediately adjacent to the basin. Actual decanter performance depends upon the complete installation including specific liquid and piping elevations and any associated field piping losses to the final point of discharge. Modification of the high water level, low water level, centerline of discharge, and / or cycle structure may be required to achieve discharge of full batch volume based on actual site installation specifics.

Aeration

- The aeration system has been designed to provide 1.25 lbs. O2/lb. BOD5 applied and 4.6 lbs. O2/lb TKN applied at the design average loading conditions, while maintaining a residual DO concentration of 2 mg/l.

- Depending on the actual yard piping from the blowers to the diffuser system and the heat losses associated with the yard piping, additional provisions for cooling of the air (i.e. incorporating heat exchangers) and/or modification of in-basin piping and/or diffuser sleeve material may be required. Aqua-Aerobic Systems, Inc. may need to modify the following equipment offering to ensure compatibility of all in-basin components with actual air temperatures.

Process/Site

- The following parameters have been assumed, as displayed on the design (engineer to verify):in basin and ambient temperatures.

- The anticipated effluent nitrogen requirement is predicated upon an influent waste temperature of 8 °C or greater. While lower temperatures may be acceptable for a short-term duration, nitrification and (if required) denitrification below 10 °C can be unpredictable, requiring special operator attention.

- Sufficient alkalinity is required for nitrification, as approximately 7.1 mg alkalinity (as CaCO3) is required for every mg of NH3-N nitrified. If the raw water alkalinity cannot support this consumption, while maintaining a residual concentration of 50 mg/l, supplemental alkalinity shall be provided (by others).

- The average, maximum and peak design flow and loading conditions, shown within the report, are based on maximum month average, maximum day and peak hour conditions, respectively.

Equipment

- Changes in basin geometry may require alterations in the equipment recommendation.

- The basins are not included and shall be provided by others.

- Influent is assumed to enter the reactor above the water level, away from the decanter, and to avoid splashing or direct discharge in the immediate vicinity of other equipment. If the influent enters the basin below the water level, adequate hydraulic capacity shall be made in the headworks to prevent backflow from one reactor to the other during transition of influent.

- Based on the process requirements and selected equipment, the reactor wall height should be at least 23 ft in the Biological System.

- Scope of supply includes freight, installation supervision and start-up services.

- Equipment selection is based upon the use of Aqua-Aerobic Systems' standard materials of construction and electrical components, suitable for non-classified electrical environments.

- The basin dimensions reported on the design have been assumed based upon the required volumes and assumed basin geometry. Actual basin geometry may be circular, square or rectangular with construction materials including concrete or steel.

- The control panel does not include motor starters or VFDs, which should be provided in a separate MCC (by others).

- Provisions should be made, by others, for overflows in each of the recommended basins.

- Aqua-Aerobic Systems, Inc. is familiar with various “Buy American” Acts (i.e. BABA, AIS, ARRA, Federal FAR 52.225, EXIM Bank, USAid, PA Steel Products Act, etc.). As the project develops Aqua-Aerobic Systems can work with you to ensure full compliance of our goods with various Buy American provisions if they are applicable/required for the project. When applicable, please provide us with the specifics of the project’s “Buy American” provisions.

AquaSBR® - Sequencing Batch Reactor - Design Summary

Design#: 180987

Project: JOHN DAY WWTP OR

Option: Process Design

Designed by Nicholas Fortsas on Wednesday, October 15, 2025

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

DESIGN INFLUENT CONDITIONS

Avg. Design Flow (ADF)	= 1.05 MGD	= 3,975 m³/day
Max Design Flow (MDF)	= 2.02 MGD	= 7,647 m³/day
Peak Hyd. Flow (PHF)	= 3.5 MGD	= 13,249 m³/day (modifying cycles)

DESIGN PARAMETERS

	Influent	mg/l	Effluent Required	<= mg/l	Effluent Anticipated	<= mg/l
Bio/Chem Oxygen Demand:	BOD5	87	BOD5	20	BOD5	10
Total Suspended Solids:	TSS	98	TSS	20	TSS	10
Total Kjeldahl Nitrogen:	TKN	21.4	TKN	3	TKN	3
Total Nitrogen:	--	--	TN	5	TN	5
Total Phosphorus:	TP	8	--	--	--	--

SITE CONDITIONS

	Maximum		Minimum		Elevation (MSL)
Ambient Air Temperatures:	95 F	32.2 C	10 F	-12.2 C	3,050 ft
Influent Waste Temperatures:	73 F	23.0 C	46 F	8.0 C	929.6 m

SBR BASIN DESIGN VALUES

			Water Depth			Basin Vol./Basin		
No./Basin Geometry:	= 2 Rectangular Basin(s)		**Min (LWL)**	= 12.8 ft	= (3.9 m)	**Min (Vlwl)**	= 0.316 MG	= (1,197.7 m³)
Freeboard:	= 2.0 ft	= (0.6 m)	**Avg (AWL)**	= 17.1 ft	= (5.2 m)	**Avg (Vawl)**	= 0.421 MG	= (1,595.2 m³)
Length of Basin:	= 66.0 ft	= (20.1 m)	**Max (HWL)**	= 21.0 ft	= (6.4 m)	**Max (Vhwl)**	= 0.518 MG	= (1,962.4 m³)
Width of Basin:	= 50.0 ft	= (15.2 m)						

	Without Carbon Addition	With Carbon Addition
Number of Cycles:	= 5 per day/basin	= 5 per day/basin
Cycle Duration:	= 4.8 hr/cycle	= 4.8 hr/cycle
Food/Mass (F/M) ratio:	= 0.036 lbs. BOD5/lb. MLSS-Day	= 0.044 lbs. BOD5/lb. MLSS-Day
MLSS Concentration:	= 4,000 mg/l @ LWL	= 4,000 mg/l @ LWL
Hydraulic Retention Time:	= 0.803 days @ AWL	= 0.803 days @ AWL
Solids Retention Time:	= 30.3 days	= 28.0 days
Est. Net Sludge Yield:	= 0.8 lbs. WAS/lb. BOD5	= 0.712 lbs. WAS/lb. BOD5
Est. Dry Solids Produced:	= 609.3 lbs. WAS/day	= 666.9 lbs. WAS/day
Est. Solids Flow Rate:	= 40 gpm (7,305 gal/day)	= 44 gpm (7,999 gal/day)
Decant Flow Rate @ MDF:	= 3,741 gpm (as avg. from HWL to LWL)	= 3,741 gpm (as avg. from HWL to LWL)
LWL to CenterLine Discharge:	= 3.0 ft	= 3.0 ft
Lbs. O2/lb. BOD5	= 1.25	= 1.25
Lbs. O2/lb. TKN	= 4.6	= 4.6
Denitrification Credit:	= 100%	= 100%
Actual Oxygen Required:	= 1,524 lbs./day	= 1,524 lbs./day
Air Flowrate/Basin:	= 702 SCFM	= 702 SCFM
Max. Discharge Pressure:	= 10.7 PSIG	= 10.7 PSIG

Daily Max. Month Avg. Estimated Power*: = 426.7 kWh/day

* Power consumption calculations in this document are based on maximum month conditions. Detailed power vs. loading calculations can be provided if requested.

POST-SBR EQUALIZATION DESIGN PARAMETERS

Avg. Daily Flow (ADF):	= 1.05 MGD	= (3,975 m³/day)
Max. Daily Flow (MDF):	= 2.02 MGD	= (7,647 m³/day)
Decant Flow Rate from (Qd):	= 3,741 gpm	= (14.2 m³M)
Decant Duration (Td):	= 54 min	
Number Decants/Day:	= 10	
Time Between Start of Decants:	= 144 min	

POST-SBR EQUALIZATION VOLUME DETERMINATION

The volume required for equalization/storage shall be provided between the high and the low water levels of the basin(s). This Storage Volume (Vs) has been determined by the following:

Vs = [(Qd -(MDF x 694.4)] x Td = 126,264 gal = (16,880.2 ft³) = (478.0 m³)

The volumes determined in this summary reflect the minimum volumes necessary to achieve the desired results based upon the input provided to Aqua. If other hydraulic conditions exist that are not mentioned in this design summary or associated design notes, additional volume may be warranted.

Based upon liquid level inputs from each SBR reactor prior to decant, the rate of discharge from the Post-SBR Equalization basin shall be pre-determined to establish the proper number of pumps to be operated (or the correct valve position in the case of gravity flow). Level indication in the Post-SBR Equalization basin(s) shall override equipment operation.

POST-SBR EQUALIZATION BASIN DESIGN VALUES

No./Basin Geometry:	= 1 Rectangular Basin(s)				
Length of Basin:	= 63.0 ft	= (19.2 m)			
Width of Basin:	= 33.0 ft	= (10.1 m)			
Min. Water Depth:	= 1.5 ft	= (0.5 m)	**Min. Basin Vol. Basin:**	= 23,326.4 gal	= (88.3 m³)
Max. Water Depth:	= 9.6 ft	= (2.9 m)	**Max. Basin Vol. Basin:**	= 149,590.4 gal	= (566.3 m³)

POST-SBR EQUALIZATION EQUIPMENT CRITERIA

Mixing Energy with Diffusers:	= 0.1 SCFM/ft² of reactor	
SCFM Required to Mix:	= 249 SCFM/basin	= (424 Nm³/hr/basin)
Max. Discharge Pressure:	= 4.7 PSIG	= (32.71 KPA)
Max. Flow Rate Required per Basin:	= 1,403 gpm	= (5.311 m³/min)
Avg. Power Required:	= 237.7 kW-hr/day	

DESIGN INFLUENT CONDITIONS

Avg. Design Flow (ADF)	= 1.05 MGD	= 3,975 m³/day
Max Design Flow (MDF)	= 2.02 MGD	= 7,647 m³/day
Peak Hyd. Flow (PHF)	= 3.5 MGD	= 13,249 m³/day

		Conc. mg/l	Mass lb/day	kg/day
Bio/Chemical Oxygen Demand:	BOD5	87	761.9	345.6
Total Suspended Solids:	TSS	98	858.2	389.3
Total Kjeldahl Nitrogen:	TKN	21.4	187.4	85
Total Phosphorus:	TP	8	70.1	31.8

SITE CONDITIONS

	Maximum		Minimum	
Ambient Air Temperatures:	95 F	32.2 C	10 F	-12.2 C
Influent Waste Temperatures:	73 F	23.0 C	46 F	8.0 C
Elevation (Mean Sea Level):	3,050 ft	930 m		

EFFLUENT OBJECTIVES

		Conc. mg/l	Mass lb/day	kg/day
Bio/Chemical Oxygen Demand:	BOD5	20	175.1	79.4
Total Suspended Solids:	TSS	20	175.1	79.4
Total Kjeldahl Nitrogen:	TKN	3	26.3	11.9
Ammonia Nitrogen:	NH3-N	1	8.8	4
Oxidized Nitrogen:	NOx-N	2	17.5	7.9
Total Nitrogen:	TN	5	43.8	19.9
Total Inorganic Nitrogen:	TIN	3	26.3	11.9

BASIN SIZING CALCULATIONS

1. **Mass of Bio-Solids necessary for treatment (lbs MLSS)**

   Based upon an F/M ratio of 0.036/day, the mass of mixed liquor suspended solids (MLSS) is:

   lb MLSS = (lb BOD5/day) / (F/M) = 21,107.8 lb MLSS = (9,574.3 kg)

2. **Total Reactor Volume at Low Level (Vlwl-T)**

   Based upon an MLSS concentration of 4,000 mg/l measured at the lowest water level, the total React Volume at low water level (Vlwl) is:

   Vlwl-T = lb MLSS/(MLSS mg/l x 8.34 lb/gal) = 0.633 MG-Total = 84,589.3 ft³-Total = (2,395.3 m³-Total)

3. **Reactor Volume for each Basin at Low Level (Vlwl/basin)**

   The AquaSBR shall utilize a 2 reactor system. The resultant unit volume for each reactor at the minimum water depth is:

   Vlwl/basin = (Vlwl-T)/(Number of Reactors) = 0.316 MG/basin = 42,294.7 ft³/basin = (1,197.7 m³/basin)

4. Average Decantable Volume for each basin (ADV)

Each AquaSBR basin shall perform treatment via 5 Cycle(s)/Day with each cycle comprising 288 Minutes (4.8 Hours). At the average daily flow (ADF) of 1.05 MGD, the batch volume at average conditions is:

ADV = ADF/(No. of Basins x No. Cycles/Day/Basin) = 105,000 gal = (397.5 m³)

5. Reactor Volume per basin at Average Flow Conditions (Vawl/Basin)

Vawl/Basin = Vlwl/Basin + ADV = 0.421 MG/basin = 56,332.1 ft³/basin = (1,595.2 m³/basin)

6. Maximum Decantable Volume for each basin (MDV)

The AquaSBR has been specifically designed to maintain 5 Cycle(s)/Day/Basin up to the Maximum Daily Flow stated above. Based upon the Maximum Daily Flow (MDF) of 2.02 MGD, the batch volume at maximum conditions is:

MDV = MDF/(No. of Basins x No. Cycles/Day/Basin) = 202,000 gal = (764.7 m³)

7. Reactor Volume per basin at Maximum Flow Conditions (Vhwl/Basin)

The maximum volume of each basin in the AquaSBR system is:

Vhwl/Basin = Vlwl/Basin + MDV = 0.518 MG/basin = 69,300 ft³/Basin = (1,962.4 m³/basin)

8. Low Water Level (LWL)

The low water level (LWL) must allow proper storage of sludge during the settle phase while providing a reasonable maximum water level. Based upon the design MLSS, the lowest operating water level is:

LWL = 12.8 ft = (3.9 m)

9. Selection of reactor geometry and dimensional requirements

The AquaSBR can be configured for a variety of reactor geometries, quantities, and materials of construction. Typical construction may employ circular, square, or rectangular tanks in concrete, steel, or earthen-sloped basins. The following has been either assumed by Aqua or designated based upon supplied information:

Number of Basins (Nb):	= 2	
Selected Reactor Geometry:	= Rectangular	
Length of Reactor:	= 66.0 ft	= (20.1 m)
Width of Reactor:	= 50.0 ft	= (15.2 m)
Low Water Level (LWL):	= 12.8 ft	= (3.9 m)
Average Water Level (AWL):	= 17.1 ft	= (5.2 m)
High Water Level (HWL):	= 21.0 ft	= (6.4 m)
Minimum Reactor Volume/Basin:	= 0.316 MG	= (1,197.7 m³)
Average Reactor Volume/Basin:	= 0.421 MG	= (1,595.2 m³)
Maximum Reactor Volume/Basin:	= 0.518 MG	= (1,962.4 m³)

PROCESS CALCULATIONS

Cycle Structure

1. Cycle Configuration

In order to perform the necessary physical and biological treatment for the specified conditions, the following treatment phases shall be used:

A.) Mix Fill	- True anoxic mixing, independent of aeration, with influent.
B.) React Fill	- Aeration/Anoxic mixing with presence of influent.
C.) React	- Aeration/Anoxic mixing under true Batch conditions.
D.) Settle	- Quiescent solids/liquid separation.
E.) Decant/Idle	- Effluent withdrawal via solids excluding, dual control decanter.
F.) Sludge Waste	- Removal of excess biological sludge.

2. Cycle Times

The following process segments have been determined specifically for this application based upon a combination of empirical data and established kinetic models adapted for the AquaSBR. The following summarizes the process conditions:

A.) No. Of Cycles (Ncdb)	= 5	E.) Mixing (Tmix)	= 3.15 Hours/cycle
B.) Total Cycle Time (Tc)	= 4.8 Hours	F.) Settling (Tset)	= 0.75 Hours/cycle
C.) Filling Time/Cycle (Tf)	= 2.4 Hours	G.) Decanting (Tdec)	= 0.9 Hours/cycle
D.) Aeration (Tair)	= 1.9 Hours/cycle	H.) Sludge Waste (Tsig)	= 18.26 Minutes/cycle

Hydraulic Rentention Time (HRT)

1. Hydraulic Retention @Average Design Conditions (HRT-avg)

Based upon an average volume of 0.421 MG/reactor and 2 reactor(s), the HRT at an average flow of 1.05 MGD is:

HRT-avg = (Vawl/Reactor x # Reactors)/ADF = 0.8 days (19.3 hours)

2. Hydraulic Retention @ Maximum Design Conditions (HRT-mdf)

Based upon a maximum volume of 0.518 MG/reactor and 2 reactors, the HRT at a maximum flow of 2.02 MGD is:

HRT-mdf = (Vhwl/Reactor x # Reactors)/MDF = 0.51 days (12.3 hours)

Sludge Production

1. Net Sludge Yield (Yn)

Based upon the design MLSS concentration, influent loading, and volume requirements stated above, the AquaSBR shall produce a certain quantity of sludge, as is typical of activated sludge processes. The sludge yield factor, Yn is:

Yn = 0.8 lb Waste activated sludge (WAS)/lb BOD5/day

Please note that the calculated sludge yield, Yn, was estimated via a kinetic model which accounts for the influent organic and inorganic TSS as well as the developed active, endogenous, inert-organic, and inert-inorganic fractions of the MLSS.

2. Net Sludge Production (lb WAS/Day)

The net sludge production (dry solids basis) is:

lb WAS/day = lb BOD5/day x Yn = 609.3 lb WAS/day = (276.4 kg/day)

3. Sludge Volume (Vs)

The volume of sludge produced, assuming a settled sludge concentration of 1.00% is:

Vs = lb WAS/day/(sludge conc. x 8.34) = 7,305 gpd = (27.7 m^3/day)

4. Mean Cell Retention Time (Ts)

The mean cell retention time (Sludge age, Ts, SRT, MCRT) of the proposed system necessary to attain the specified effluent objectives is:

Ts = lb MLSS/(lb WAS/day + lb TSSe/day) = 30.3 days

5. Oxygen Utilization Rates for Synthesis, Oxidation & Nitrification

Based upon a kinetic evaluation of the influent data with respect to the proposed design considerations, the estimated oxygen uptake rate (OUR) at average conditions is 16.2 mg/l/hr. The process oxygen required is:

OUR lb/hr = OUR mg/l/hr x Vawl/basin x 8.34 = 56.8 lb O2/hr/basin = (25.8 kg/hr/basin)

AERATION SYSTEM EQUIPMENT REQUIREMENTS

Actual Oxygen Requirement (AOR)

1. Oxygen Required For Organic Reduction (Rb)

The aeration system shall be designed to provide 1.25 lb O2 for each lb BOD5, as influent to the SBR system. This oxygen provision shall account for the oxygen utilization for synthesis, as well as endogenous respiration.

Rb = 1.25 lb O2/lb BOD5 x lb BOD5 applied/day = 952.4 lb O2/day = (432.0 kg/day)

2. Oxygen Required For Nitrification (Rn)

Additional oxygen may be necessary for nitrification of TKN to NO3-N. While an effluent requirement may or may not exist, it may be difficult to prevent nitrification from exerting an oxygen demand (when nitrogen is present in the influent). Nitrification requires 4.6 lb O2 to oxidize each lb of TKN to NO3-N.

Rn = lb O2/lb TKN x lb TKN applied/day = 862.0 lb O2/day = (391.0 kg/day)

3. Carbon Stabilized via Denitrification (Rd)

When complete mixing occurs in the absence of aeration and the presence of organic substrate (and NO3-N), denitrification of NO3-N to N2 (gas) can occur. Denitrification makes 2.86 lbs. O2 available from each lb. NO3-N that is converted.

Rd = 2.86 lbs. O2/NO3-N x lbs. NO3-N/day = 290.0 lbs. O2/day = (131.6 kg/day)

4. Total Actual Oxygen Requirement (AORt)

The total oxygen demand under process (field) conditions is:

AORt = Rb + Rn – Rd = 1,524.5 lb O2/day (total) = (691.5 kg/day)

5. Hourly Actual Oxygen Requirement (AORh)

Based on 1.9 hours of aeration per cycle, 5 cycles/day/basin, and 2 Basin(s), the hourly AORh is:

AORh = 80.2 lb O2/hr/basin = (36.4 kg/hr/basin)

6. Actual Aeration Time Required To Meet Average Demand (At)

The aeration system has been designed to meet the design maximum oxygen requirement in 1.9 hours/cycle/basin. Since average conditions will not require as much oxygen, the actual aeration time shall be adjusted to generate a power draw reflective of average conditions. The aeration time required at average conditions is:

At = (OUR/AOR) x Design aeration/cycle/basin = 1.3 hr/cycle/basin

Process Wastewater Conditions (FINE BUBBLE DIFFUSERS)

1. **Field Oxygen Transfer Factor (FTF)**

   While the AOR quantifies the necessary oxygen to satisfy the biochemical reactions, the process water possesses inherent characteristics that typically inhibit oxygen transfer as it compares to tap (clean) water. The FTF coefficient adjusts the oxygen transfer requirements in field (dirty) conditions to standard (clean) water conditions as follows:

   FTF = Alpha x Theta^(T-20) x [(Beta x Csm) – Cr]/Cstm = 0.452

   Where:

   Alpha = Ratio of mass transfer rate of O2 in process water to clean water = 0.65

   Beta = Ratio of saturation of O2 in process water to clean water = 0.95

   Theta = Temperature correction factor for O2 transfer = 1.024

   T = Design reactor temperature = 23.0 C

   Cstm = Saturation DO at mid-depth and standard conditions = 11.24 mg/l

   Csm = Cstm corrected for site elevation and temperature = 9.76 mg/l

   Cr = Residual dissolved oxygen concentration = 2.0 mg/l

Standard Conditions

1. **Standard Oxygen Requirement (SORh)**

   The oxygen transferred at standard conditions necessary to satisfy the required process oxygen demand at field conditions is:

   SORh = AORh / FTF = 177.6 lb O2/hr/basin = (80.6 kg/hr/basin)

2. **Standard Cubic Feet of Air per Minute (SCFM)**

   The ability to transfer oxygen into the water under standardized conditions is:

   SCFM = (SOR lb/hr/basin)/(60 x 0.0175 x SOTE/ft x Dsub) = 702 SCFM = (19.9 m³/min)

   Where:

   0.0175 = lb O2 per cubic foot of air at standard conditions.

   SOTE/FT = Standard Oxygen Transfer Efficiency per foot submergence = 1.50%/ft = (4.92%/m)

   Dsub= Average diffuser submergence = 16.1 ft = (4.9 m)

Blower Inlet Conditions

1. **Actual Inlet Pressure (Pa due to elevation and inlet filter/silencer/piping losses)**

   Note: An assumed inlet loss due to blower fittings/piping of 0.25 psig has been assumed.

   Pa = 14.696 – (Elevation, ft/2116.3) – 0.25 = 13.00 P.S.I.A. = (89.73 KPA)

2. **Blower Inlet Air Temperature in Degrees Rankine**

   Ta = Ambient air temp (Deg F) + 460 = 555.0 Degrees R = (305.2 K)

3. **Inlet Cubic Feet of Air per Minute (ICFM)**

   From the perfect gas law, the universal gas constant (MR) can relate standard conditions to inlet conditions, as:

   ICFM = SCFM x (14.696 x Ta)/(Pa x 528) = 833.5 ICFM/basin = (23.5 m³/min/basin)

Blower Discharge Conditions

1. **Discharge Pressure (Pd)**

   The discharge pressure includes the static pressure above the diffusers and dynamic losses from the blower discharge through the diffusers, as expressed by:

   Pd = (0.4333 x Diffuser submergence, ft) + System losses, PSIG,

Where the assumed system losses account for 0.20 PSIG blower discharge losses, 0.50 PSIG piping losses from blower to diffuser, and 1.30 PSIG diffuser losses.

Average discharge pressure (Pda) = 8.96 PSIG = (61.82 KPA)

Maximum discharge pressure (Pdm) = 10.67 PSIG = (73.62 KPA)

Average Blower Power Estimate

1. Estimated Average Power Draw (BHP)

The following is a general equation that estimates the power draw of the blower at the average oxygen demand and average pressure. While the actual blower selection shall be made from manufacturer supplied curves, programs, or recommendations at maximum conditions, this equation shall be used to estimate the annual average aeration power. Unless stated otherwise, a blower efficiency (e) of 0.70 shall be used (typical range 0.60 to 0.70).

BHP = 0.227 x ICFM x [((Pa + Pda)/Pa)^0.283 – 1]/e = 42.6 BHP = (31.7 kW)

2. Estimated Daily Power Required for Blowers (Pwa)

Pwa = (BHP x 0.7457 x At x Ncdb x Nb) = 426.7 kWh/day

Blower Selection

1. Blower Recommendation

The actual blower and motor sizing must consider inlet conditions under operating temperature and pressure extremes. Motor size, for example, must be selected to handle inlet air at maximum density, which occurs at lowest operating temperatures. Blower size must be selected to deliver the required air volume at minimum density (maximum operating temperature) throughout the range of pressures. The following has been recommended to meet the design extremes:

Number of blowers operating/basin:	= 1	
Number of total blowers operating:	= 2	
Number of standby units:	= 1	
Total number of installed units:	= 3	
Motor size of each blower:	= 75 HP	= 55.9 kW
Airflow capacity of each blower:	= 702 SCFM	= 19.9 m³/min
Maximum design discharge pressure:	= 10.7 PSIG	= 73.6 KPA

20-YEAR O&M ESTIMATE

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

JOHN DAY WWTP OR

Design#: 180987

Option: Process Design

Designed By Nicholas Fortsas on Wednesday, October 15, 2025

Prepared By Nicholas Fortsas on Wednesday, October 15, 2025

O&M NOTES

* Stand-by blower unit included in estimate for budget purposes. Maintenance costs of stand-by unit may be reduced based upon the actual hours of operation.

** AquaDDM Mixers and AquaJet Surface Aerators Endura Series incorporate design enhancements that provide for three (3) years without routine maintenance (greasing). After this time, yearly routine maintenance is expected.

*** This is based upon operation at 100% of design conditions.

**** The values listed are for estimating purposes only. The actual amount of operator attention provided will be dependent upon local requirements and the size of the staff available for testing.

All estimates are based upon equipment maintenance and operation in accordance with the O & M instructions provided by Aqua-Aerobic Systems. They are based on typical SBR installations with a normal preventative maintenance schedule for the equipment. The actual maintenance man hours required for each project will vary depending upon site and climate conditions, which may alter the frequency of the maintenance schedule.

Biological Estimated Operation & Maintenance Costs

Design#: 180418

Project: JOHN DAY WWTP OR

Option: Process Design

Designed by Nicholas Fortsas on Wednesday, September 10, 2025

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

I. EQUIPMENT MAINTENANCE AND REPLACEMENT ESTIMATE

Qty	Unit	Service Required	Replacement Interval (Years)	Material Cost	20-Year Total
	AquaSBR				
2	AquaDDM Mixer**	Motor Grease	1	$4	$136
3	Blower*	Oil Change	2	$45	$1,350
3	Blower*	Replace Inlet Air Filter Elements	1	$170	$10,200
3	Blower*	Replace Belt	2	$80	$2,400
2	Decanter	Replace Actuator, Capacitor, Limit Switch	5	$1,200	$9,600
2	D.O. Sensors	Replace Sensor Head	2	$224	$4,480
2	pH Sensor	Replace Salt Bridge	1	$84	$3,360
300	RFB Diff. Membranes	25% Diffuser Membrane Replacement	5	$32	$9,600
4	Sludge Pump	Repair Kit	5	$589	$9,424
	Post-Equalization				
1	Blower	Oil Change	2	$23	$225
1	Blower	Replace Inlet Air Filter Elements	1	$120	$2,400
1	Blower	Replace Belt	2	$50	$500
4	Transfer Pump	Repair Kit	5	$567	$9,072
	Controls				
1	Controller	Replace Relays, Switches, Fuses	1	$50	$1,000
1	Controller	Replace Microprocessor Battery	3	$26	$156

INTERVAL TOTALS:

1-Year	2-Year	3-Year	5-Year
$856	$896	$26	$9,424

20-Year Estimated Total: $63,903

II. LABOR REQUIREMENTS ESTIMATE

Estimated General Operation & Maintenance **

12.0 = Man Hours/week for Process Testing

6.0 = Man Hours/week for General Plant Cleanup and Routine Maintenance

III. POWER CONSUMPTION ESTIMATE

Power Costs of All Equipment as Proposed *

AquaSBR	885	(kWh/day)
Post-Equalization	208	(kWh/day)
Total:	1,092	(kWh/day)
Estimated $/kWh:	$0.08	
Total Annual Power Cost:	$31,895	

20-Year Estimated Power Cost: $637,900

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

October 9, 2025

Correspondence ID#: AAL-51948
John Day, City of
Attn: Melissa Bethal
450 East Main Street
John Day, Oregon 97845
USA
Email: bethelm@grantcounty-or.gov

Project: JOHN DAY WWTP OR

RE: City of John Day, OR - John Day Wastewater Treatment Facility Improvements Project - Request for Proposals - Project # 225008--060
Specification Section 46 53 53 - Sequencing Batch Reactors
AASI ID # 11694 - AASI Proposal # 180987 Dated 10/9/2025 - Warranty Amendment

Dear Melissa,

Aqua-Aerobic Systems, Inc. warrants the goods provided by Aqua-Aerobic Systems, Inc. in accordance with the "Warranty; Limitation Of Liability; And Disclaimer" as amended herein:

1. In accordance with Specification Section 46 53 53 - Sequencing Batch Reactors, 1.8 Warranty, page 46 53 53 - 6; Warranty period shall be two (2) years from Substantial Completion. We clarify the equipment will be fit for the purposes specified in lieu of the equipment being fit for the purposes intended as specified within Article 6., page 00 52 00 - 6. The warranty for any repaired or replaced equipment shall extend for an additional twelve (12) months from the date of repair or replacement.

2. Freight costs for goods repaired/replaced under warranty are included.

3. Labor costs for goods repaired/replaced under warranty are included.

4. The cost of a warranty that is extended for additional year(s) can be provided upon request.

6306 N. Alpine Rd. Loves Park, IL 61111-7655 p 815.654.2501 f 815.654.2508 www.aqua-aerobic.com

Sincerely,

Barb Kinroth

Barb Kinroth
Contract Administrator

CC: File

Attachment: Warranty; Limitation of Liability; And Disclaimer

6306 N. Alpine Rd. Loves Park, IL 61111-7655 p 815.654.2501 f 815.654.2508 www.aqua-aerobic.com

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

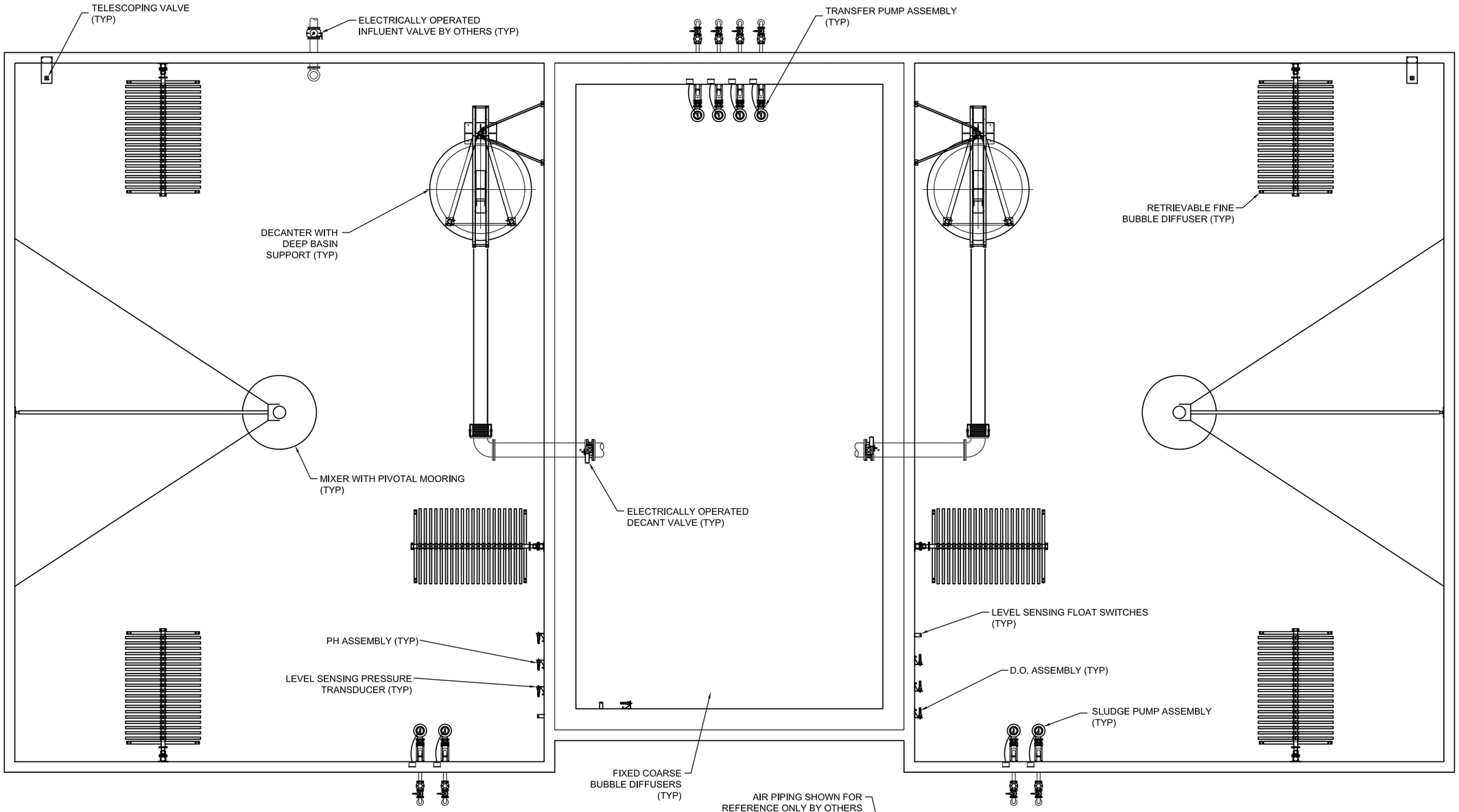
WARRANTY; LIMITATION OF LIABILITY; AND DISCLAIMER

In return for purchase and full payment for Aqua-Aerobic Systems, Inc. goods, we warrant new goods provided by us to be free from defects in materials and workmanship under normal conditions and use for a period of one year from the date the goods are put into service, or eighteen months from date of shipment (whichever first occurs). If the goods include an Endura Series® motor, the complete Endura Series unit shall be warranted by Aqua to be free from defects in materials and workmanship under normal conditions and use for three years from the date the product is put into service or 42 months from the date of shipment (whichever occurs first). **OUR OBLIGATION UNDER THIS WARRANTY IS EXPRESSLY AND EXCLUSIVELY LIMITED** to replacing or repairing (at our factory at Loves Park, Illinois) any part or parts returned to our factory with transportation charges prepaid, and which our examination shall show to have been defective. Prior to return of any goods or its parts to our factory, Buyer shall notify Aqua-Aerobic Systems, Inc. of claimed defect, and Aqua-Aerobic Systems, Inc. shall have the privilege of examining the goods at Buyer's place of business at or where the goods have otherwise been placed in service. In the event this examination discloses no defect, Buyer shall have no authority to return the goods or parts to our factory for the further examination or repair. All goods or parts shall be returned to Buyer, F.O.B. Loves Park, Illinois. This warranty shall not apply to any goods or part which has been repaired or altered outside our factory, or applied, operated or installed contrary to our instruction, or subjected to misuse, chemical attack/degradation, negligence or accident. This warranty and any warranty and guaranty of process or performance shall no longer be applicable or valid if any product, including any software program, supplied by Aqua-Aerobic Systems, Inc., is modified or altered without the written approval of Aqua-Aerobic Systems, Inc. Our warranty on accessories and component parts not manufactured by us is expressly limited to that of the manufacturer thereof.

THE FOREGOING WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND OF ALL OTHER LIABILITIES AND OBLIGATIONS ON OUR PART, INCLUDING ANY LIABILITY FOR NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE; AND ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS EXPRESSLY DISCLAIMED; AND WE EXPRESSLY DENY THE RIGHT OF ANY OTHER PERSON TO INCUR OR ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF ANY GOODS PROVIDED BY US. THERE ARE NO WARRANTIES OR GUARANTEES OF PERFORMANCE UNLESS SPECIFICALLY STATED OTHERWISE.

UNDER NO CIRCUMSTANCES, INCLUDING ANY CLAIM OF NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL AQUA-AEROBIC SYSTEMS, INC. BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, COSTS OF CONNECTING, DISCONNECTING, OR ANY LOSS OR DAMAGE RESULTING FROM A DEFECT IN THE GOODS. LIMIT OF LIABILITY: AQUA-AEROBIC SYSTEMS, INC.'S TOTAL LIABILITY UNDER THE ABOVE WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF ANY DEFECTIVE PART. THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE, AND OUR LIABILITY WITH RESPECT TO ANY CONTRACT OR SALE, OR ANYTHING DONE IN CONNECTION THEREWITH, WHETHER IN CONTRACT, IN TORT, UNDER ANY WARRANTY, OR OTHERWISE, SHALL NOT, IN ANY CASE, EXCEED THE PRICE OF THE GOODS UPON WHICH SUCH LIABILITY IS BASED.

6306 N. Alpine Rd. Loves Park, IL 61111-7655 p 815.654.2501 f 815.654.2508 www.aqua-aerobic.com



SBR BASIN

66' X 50'
23.0' BASIN DEPTH
21.0' MAXIMUM WATER DEPTH
12.8' MINIMUM WATER DEPTH
(2)

POST-EQ BASIN

63' X 33'
23.0' BASIN DEPTH
9.62' MAXIMUM WATER DEPTH
0.0' MINIMUM WATER DEPTH

NOTE: ALL VALVE VAULTS, DISCONNECT BOXES, INFLUENT PIPING, EFFLUENT PIPING, SLUDGE / TRANSFER PIPING, AND WALKWAYS ARE SHOWN FOR REFERENCE ONLY AND ARE TO BE SUPPLIED AND INSTALLED BY OTHERS.

NOTE: BASIN OVERFLOWS MUST BE PROVIDED.

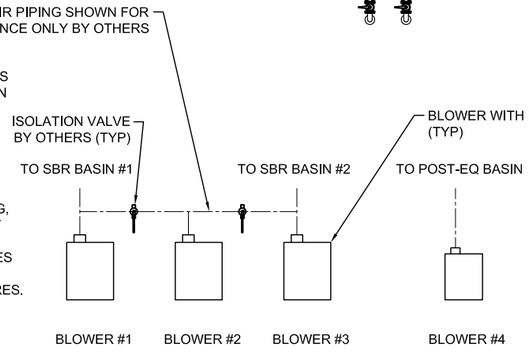
NOTE: INFLUENT VALVE ISOLATION OR BY-PASS MUST BE PROVIDED BY THE INSTALLING CONTRACTOR.

FIXED COARSE BUBBLE DIFFUSER:
NOTE: BLOWER DISCHARGE MANIFOLD AND PIPING LOSSES ARE ASSUMED AT 0.30 psi. FROM TERMINATION FLANGE OF THE BLOWER TO THE DIFFUSER RISER PIPE TERMINATION FLANGE. ENGINEER TO VERIFY ACTUAL LINE LOSSES DO NOT EXCEED THE ABOVE. INLET LOSSES ARE ASSUMED AT 0.25 PSI FOR INLET SILENCER AND A CLEAN FILTER. NO INLET LOSSES HAVE BEEN ASSUMED FOR INLET FILTER PIPING, AND IT IS ASSUMED THAT THE FILTER IS LOCATED ON EACH BLOWER.

RETRIEVABLE FINE BUBBLE DIFFUSER:
NOTE: BLOWER DISCHARGE MANIFOLD AND PIPING LOSSES ARE ASSUMED AT 0.50 psi. FROM TERMINATION FLANGE OF THE BLOWER TO THE DIFFUSER ISOLATION VALVE. ENGINEER TO VERIFY ACTUAL LINE LOSSES DO NOT EXCEED THE ABOVE. INLET LOSSES ARE ASSUMED AT 0.25 PSI FOR INLET SILENCER AND A CLEAN FILTER. NO INLET LOSSES HAVE BEEN ASSUMED FOR INLET FILTER PIPING, AND IT IS ASSUMED THAT THE FILTER IS LOCATED ON EACH BLOWER.

GROUTING:
NOTE: IF BASINS WITH SLOPED FLOORS ARE UTILIZED, SUPPLY OF GROUT PADS BENEATH THE PROPOSED EQUIPMENT TO PROVIDE FOR A LEVEL INSTALLATION ELEVATION FOR THE EQUIPMENT IS TO BE PROVIDED BY THE INSTALLING CONTRACTOR/PURCHASER.

DIFFUSED AIR SYSTEM:
NOTE: DEPENDING ON THE ACTUAL YARD PIPING FROM THE BLOWERS TO THE DIFFUSER SYSTEM AND THE HEAT LOSSES ASSOCIATED WITH THE YARD PIPING, ADDITIONAL PROVISIONS FOR COOLING OF THE AIR (I.E. INCORPORATING HEAT EXCHANGERS) AND/OR MODIFICATION OF IN-BASIN PIPING AND/OR DIFFUSER SLEEVE MATERIAL MAY BE REQUIRED. AQUA-AEROBIC SYSTEMS, INC. RESERVES THE RIGHT TO MODIFY THE FOLLOWING EQUIPMENT OFFERING TO ENSURE COMPATIBILITY OF ALL IN-BASIN COMPONENTS WITH ACTUAL AIR TEMPERATURES.



NOT FOR CONSTRUCTION

JOB NAME:	JOHN DAY WWTP
JOB LOCATION:	OR
DRAWN BY:	ZJD
DATE:	2025-10-15
DRAWING NAME:	SBR LAYOUT
DRAWING NUMBER:	81166943000
SCALE:	
SIZE:	D

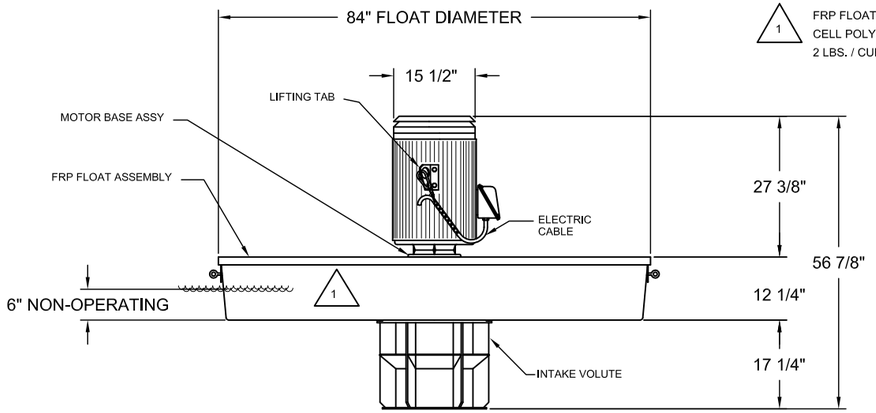
AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

DO NOT SCALE DRAWING

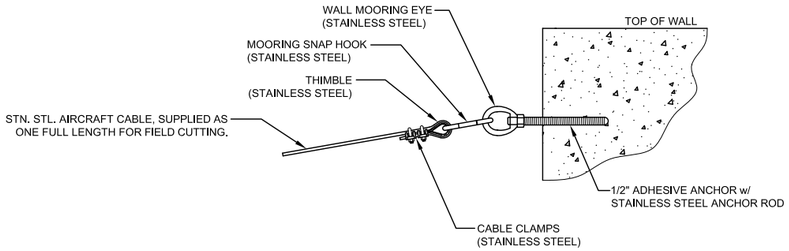
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
FRACTIONAL DIMENSIONS +/- 1/16
ALL TWO PLACE DECIMALS +/- 0.010
ALL THREE PLACE DECIMALS +/- 0.005
ALL ANGLES +/- 1/2°
ANSI

MATERIAL:
SIMILAR TO:
TYPE:
WEIGHT:
SHEET: OF

REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION

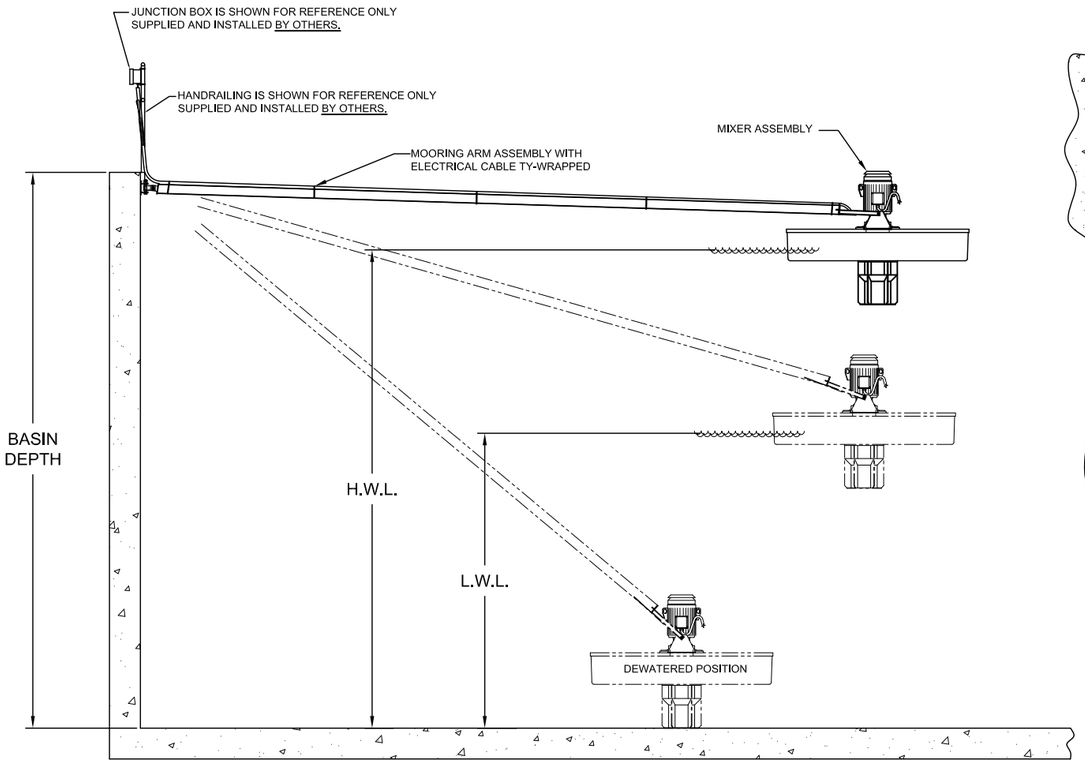


MIXER DETAIL

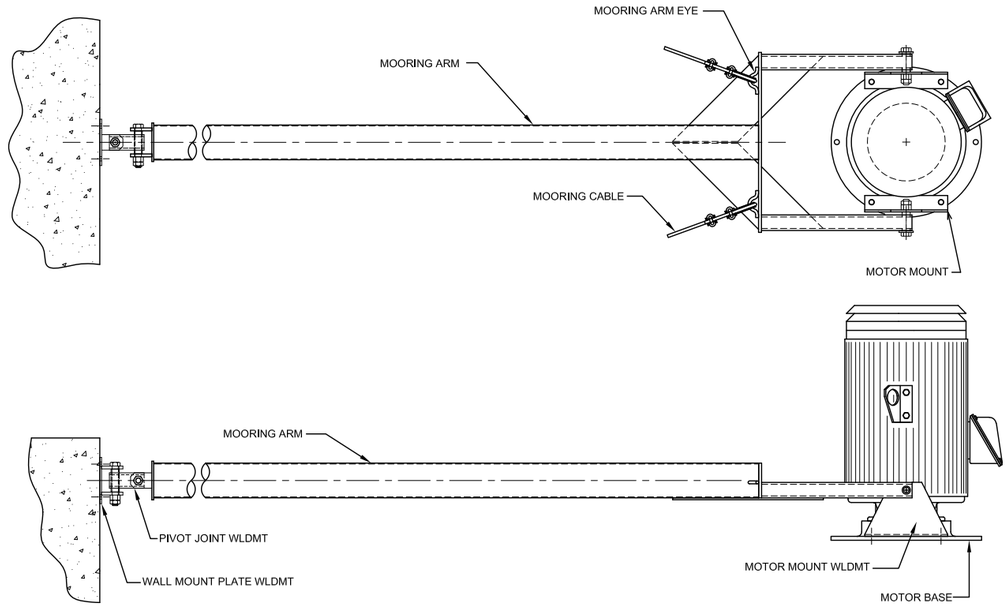


MAINTENANCE CABLE DETAIL

NOTE: POLYPROPYLENE MAINTENANCE LOOP PROVIDED TO ALLOW UNIT TO BE ACCESSED TO SIDE OF BASIN.



MIXER OPERATIONAL VIEW



TYPICAL MIXER MOORING ARM DETAILS

NOTE: TY-WRAP ELECTRICAL CABLE TO ARM
N.T.S.

NOT FOR CONSTRUCTION

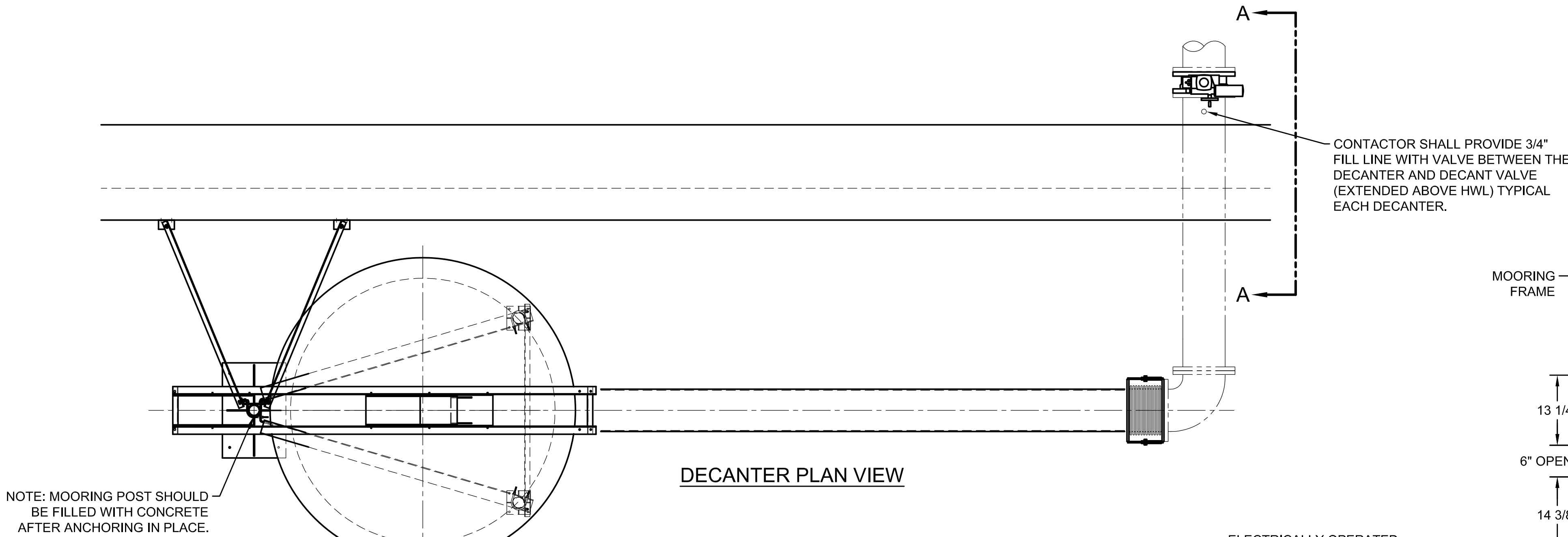
JOB NAME: JOHN DAY WWTP				
JOB LOCATION: OR				
REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION

AQUA-AEROBIC SYSTEMS, INC.
A Mebwater Company

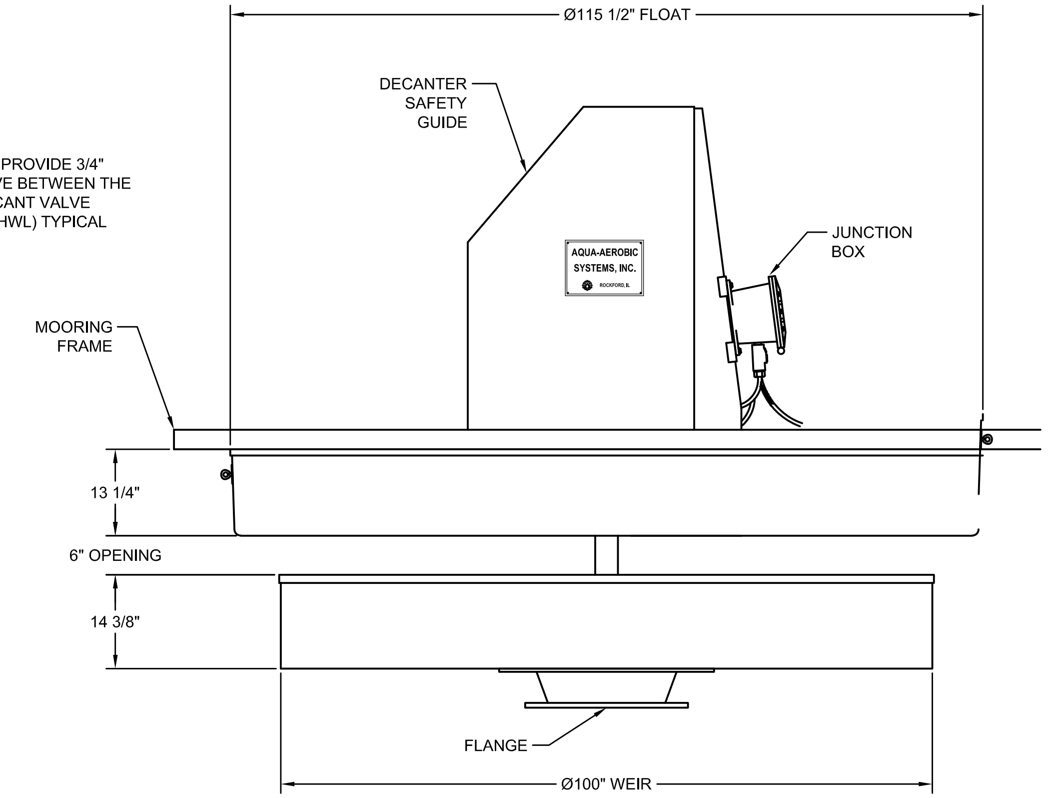
DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
FRACTIONAL DIMENSIONS +/- 1/16
ALL TWO PLACE DECIMALS +/- 0.010
ALL THREE PLACE DECIMALS +/- 0.005
ALL ANGLES +/- 1/2°
ANSI

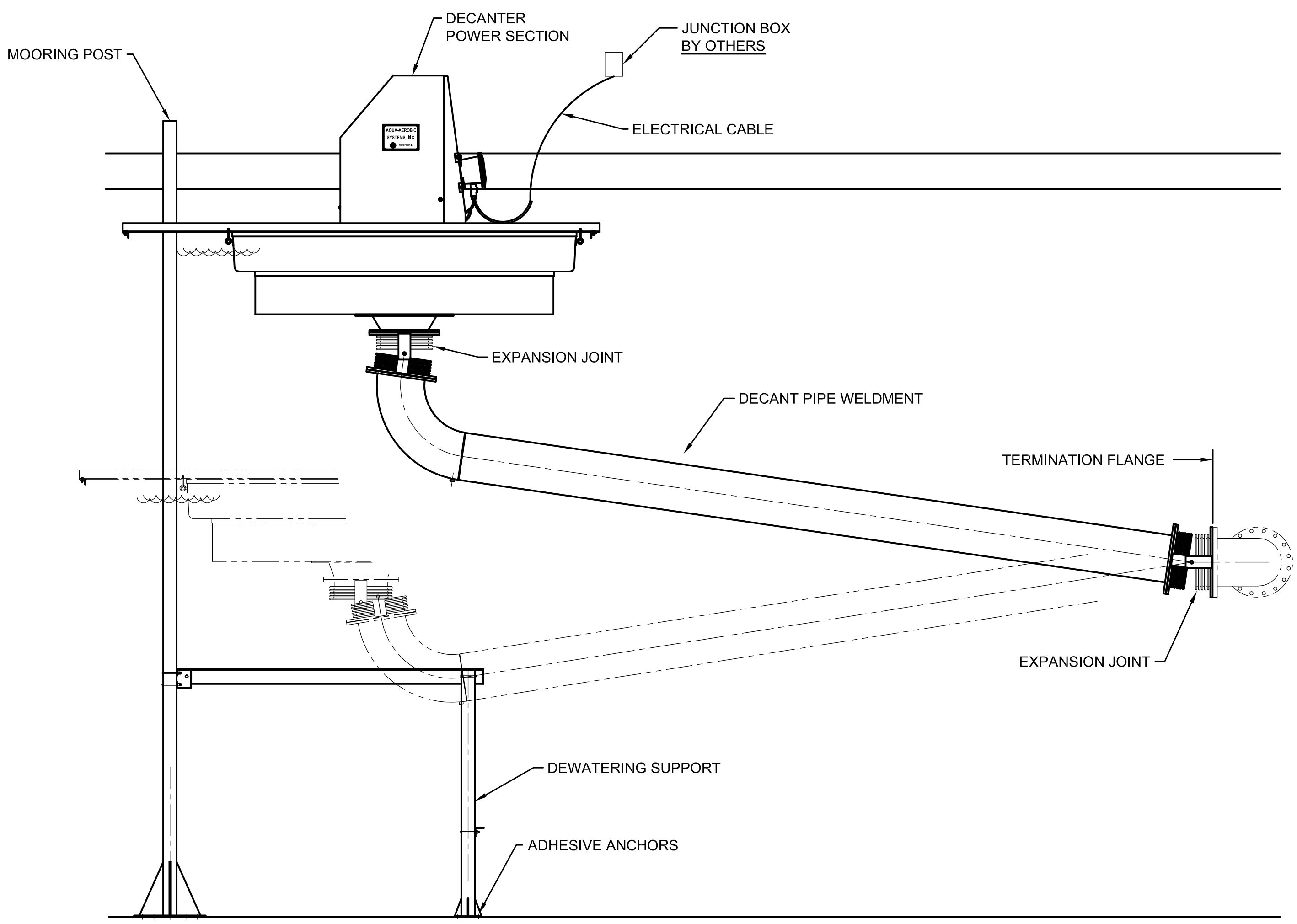
MATERIAL:
SIMILAR TO:
TYPE:
DRAWN BY: ZJD
DATE: 2025-10-15
WEIGHT:
SHEET: OF:
DRAWING NAME: MIXER DETAILS
DRAWING NUMBER: 81166943001
SCALE:
SIZE: D



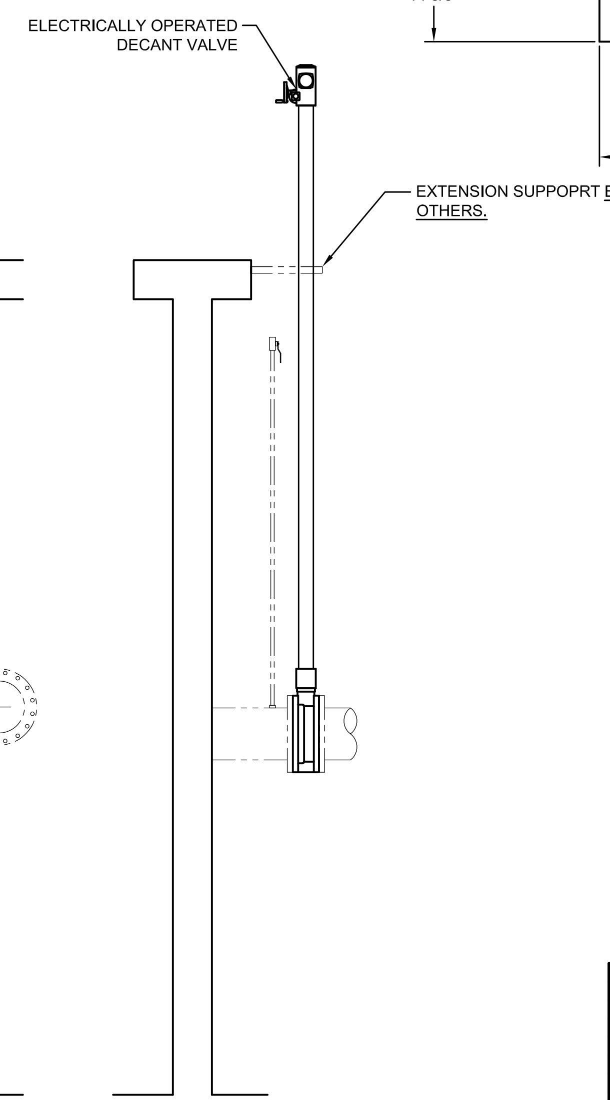
DECANTER PLAN VIEW



DECANTER DETAILS



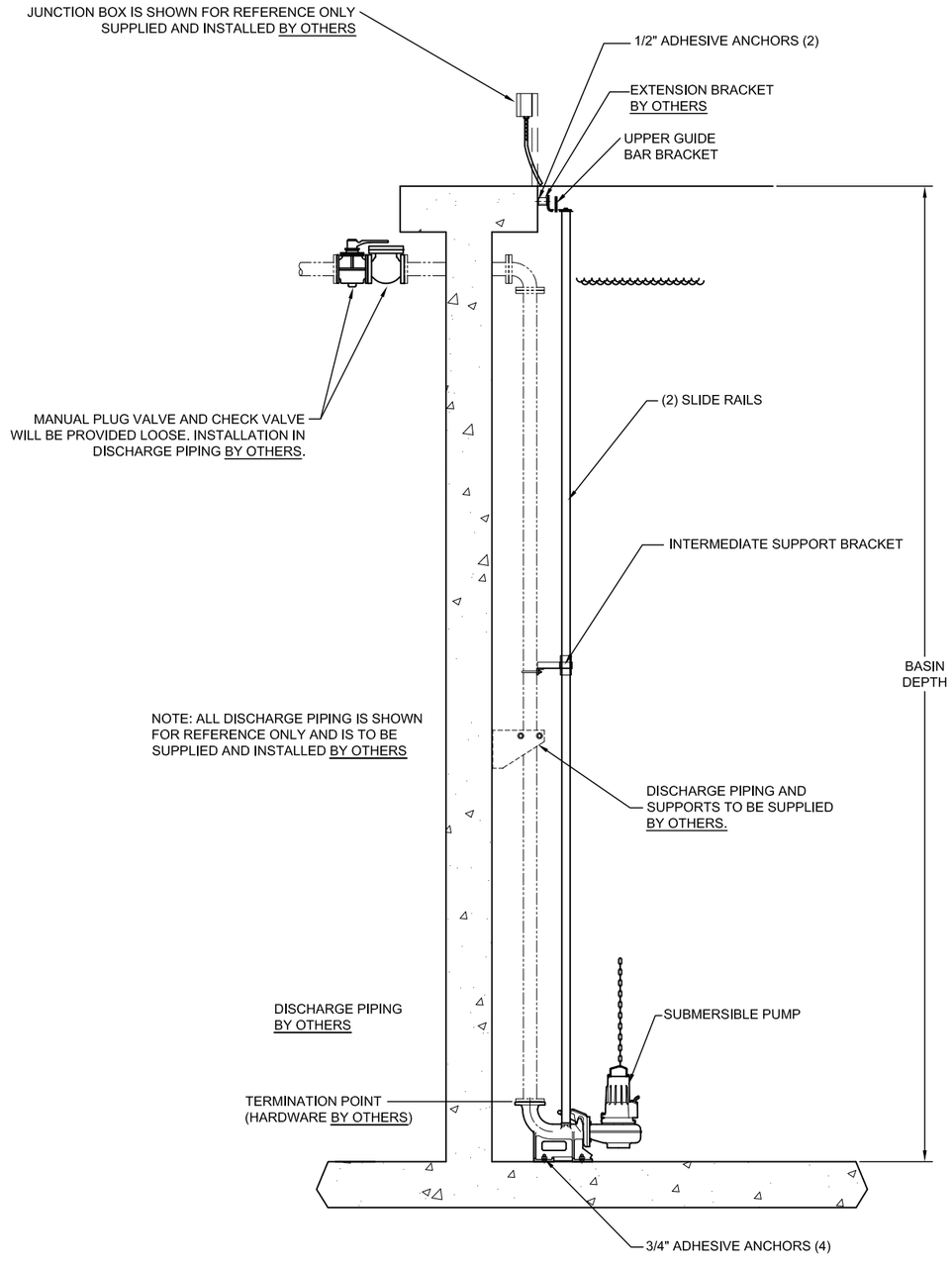
DECANTER ELEVATION VIEW



SECTION A-A

NOT FOR CONSTRUCTION

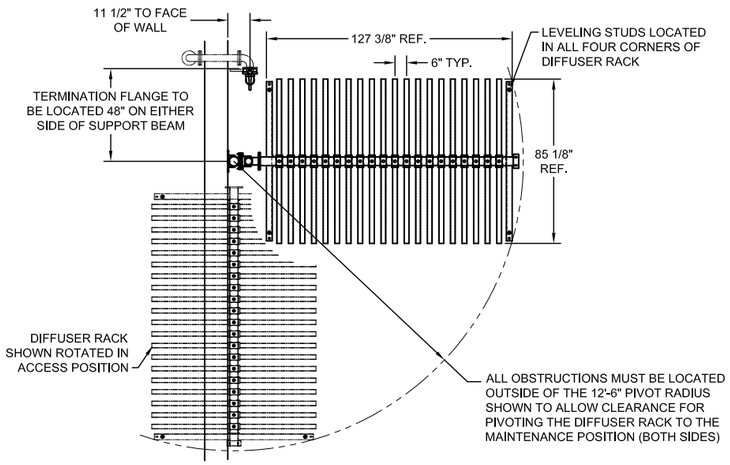
JOB NAME: JOHN DAY WWTP	AQUA-AEROBIC SYSTEMS, INC. A Metawater Company
JOB LOCATION: OR	DO NOT SCALE DRAWING — UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES; FRACTIONAL DIMENSIONS +/- 1/16; ALL TWO PLACE DECIMALS +/- 0.010; ALL THREE PLACE DECIMALS +/- 0.005; ALL ANGLES +/- 1/2°; ANSI
REV / ERN / ECO / DATE / BY / REVISION DESCRIPTION	MATERIAL:
	SIMILAR TO:
	TYPE:
	DRAWN BY: ZJD / DATE: 2025-10-15
	WEIGHT: / SHEET: OF
DRAWING NAME: DECANTER DETAILS	DRAWING NUMBER: 81166943002 / SCALE: / SIZE: D

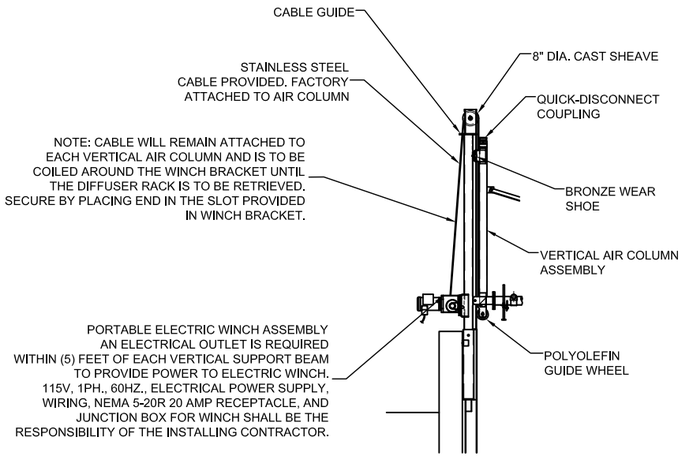


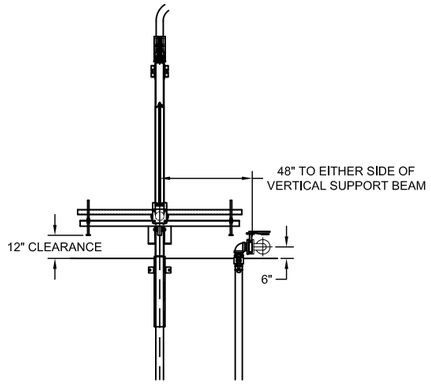
PUMP DETAIL

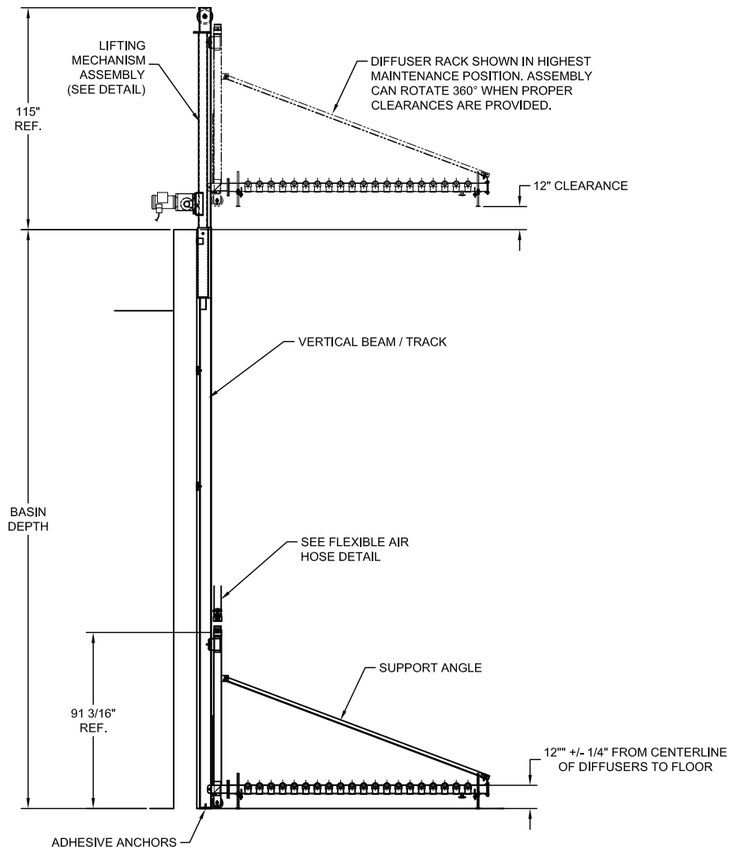
NOT FOR CONSTRUCTION

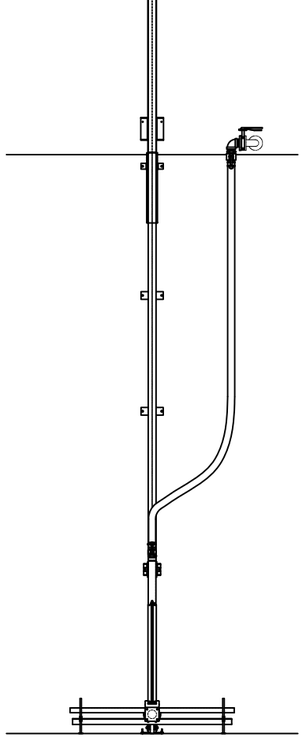
JOB NAME: JOHN BAY WWTP					AQUA-AEROBIC SYSTEMS, INC. A Matzender Company
JOB LOCATION: OR					
					UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
					DO NOT SCALE DRAWING — FRACTIONAL DIMENSIONS +/- 1/16; ALL TWO PLACE DECIMALS +/- 0.010; ALL THREE PLACE DECIMALS +/- 0.005; ALL ANGLES +/- 1/2°; ANSI
					MATERIAL:
					SIMILAR TO:
					TYPE:
					DRAWN BY: ZJD — DATE: 2024-10-14
REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION	WEIGHT: — SHEET: OF
DRAWING NAME: PUMP DETAILS					DRAWING NUMBER: 81166943003 — SCALE: — SIZE: D



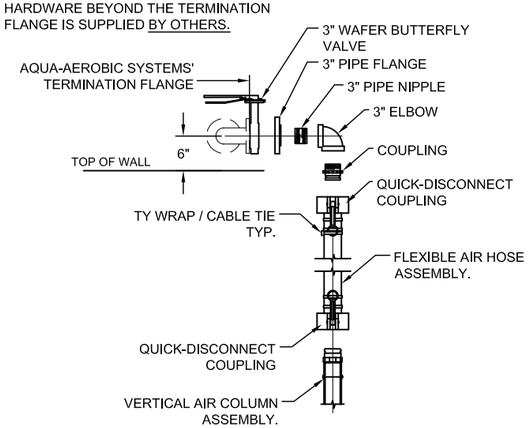








NOTE: AIR MANIFOLD PIPING SHOWN FOR REFERENCE ONLY. ALL PIPING AND HARDWARE BEYOND THE TERMINATION FLANGE IS SUPPLIED BY OTHERS.



FLEXIBLE AIR LINE DETAIL

NOTE: CLOSE CAM-LOCK LEVER ARMS AND TY-WRAP AROUND HOSE, BOTH ENDS. INSPECT THE GASKET INSIDE OF THE CAM-LOCK FITTINGS PRIOR TO ASSEMBLY. GASKET MAY FALL OUT DUE TO HANDLING. EACH FITTING MUST HAVE GASKET TO PREVENT AIR LEAKS.

NOT FOR CONSTRUCTION

JOB NAME: JOHN DAY WWTP
JOB LOCATION: OR

REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION

AQUA-AEROBIC SYSTEMS, INC.
A Mebtewater Company

DO NOT SCALE DRAWING

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FRACTIONAL DIMENSIONS +/- 1/16
ALL TWO PLACE DECIMALS +/- 0.010
ALL THREE PLACE DECIMALS +/- 0.005
ALL ANGLES +/- 1/2°
ANSI

MATERIAL:
SIMILAR TO:
TYPE:
DRAWN BY: ZJD
DATE: 2025-10-14
WEIGHT:
SHEET: OF

DRAWING NAME: RETRIEVABLE DIFFUSER DETAILS
DRAWING NUMBER: 81166943004
SCALE:
SIZE: D

: Center of gravity
Position marginally dependent on design

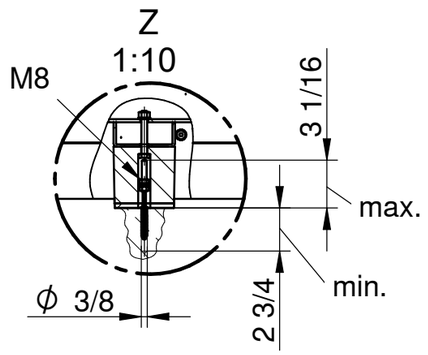
SFC / STC						
Type	Nominal power	A/A***	X*	Y*	Z*	Weight **
EBS 410 C	30 hp	2 3/4 / 2 3/8	25 9/16 / 26 3/8	41 5/16 / 40 9/16	28 3/8 / 28 3/4	~2385/2452 lb
	40 hp		27 9/16 / 28 3/4	39 3/8 / 38 3/16	29 1/2 / 30 5/16	~2491/2628 lb
	50 hp		29 1/2 / 31 1/2	36 1/4 / 35 13/16	31 1/8 / 31 7/8	~2762/2712 lb

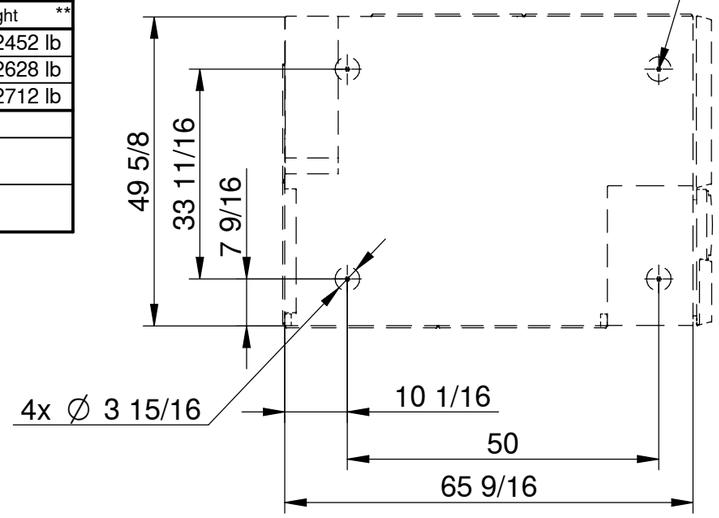
* (approximate dimensions)

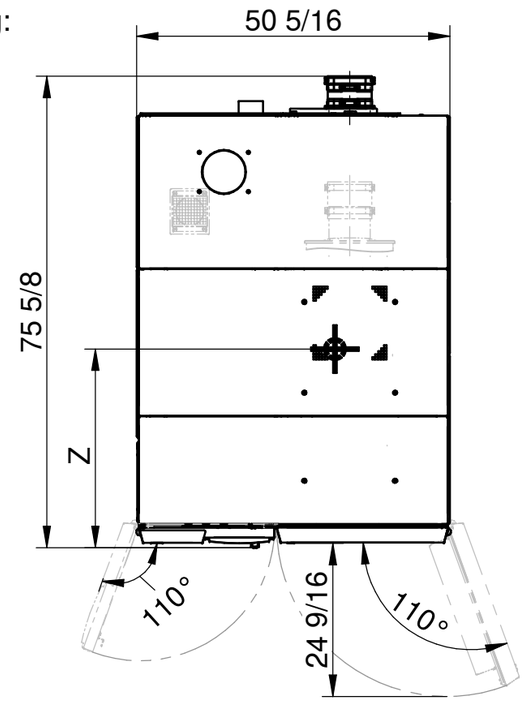
** Nominal value: Actual value depends on design

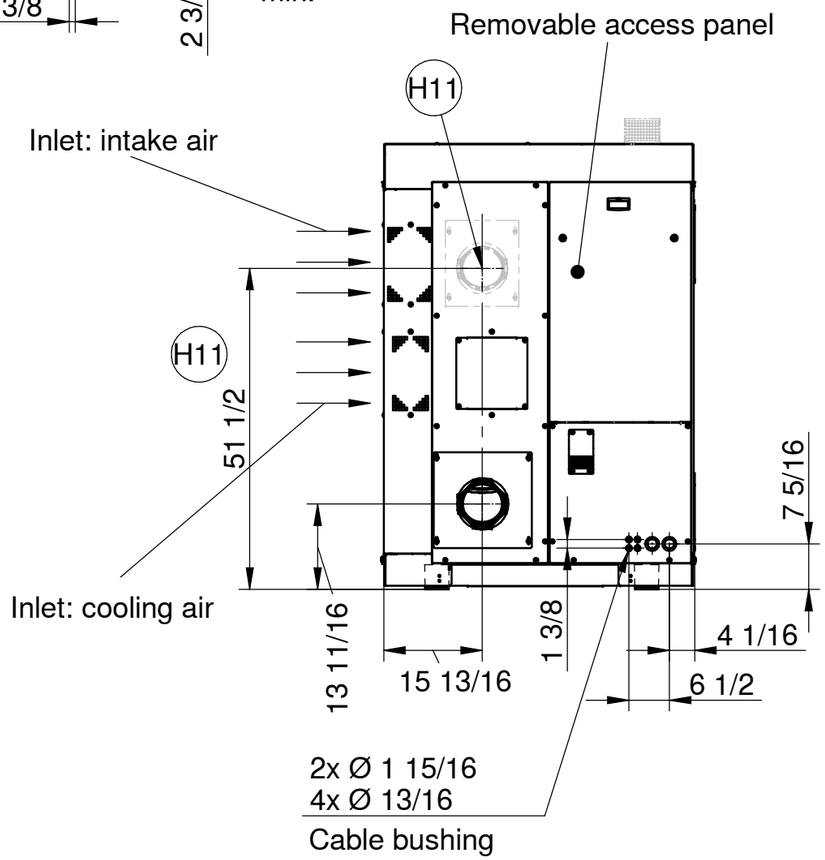
*** Dimensions without check valve

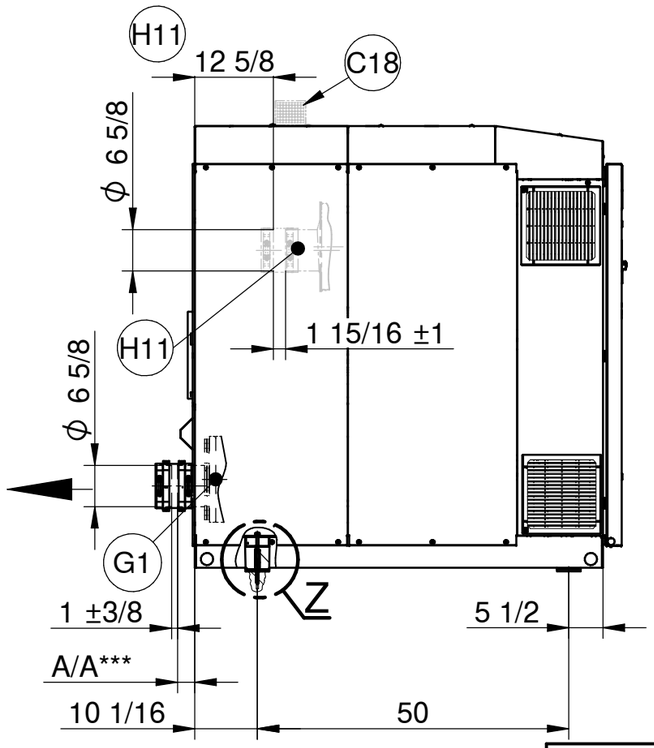
Dimensions shown in inches

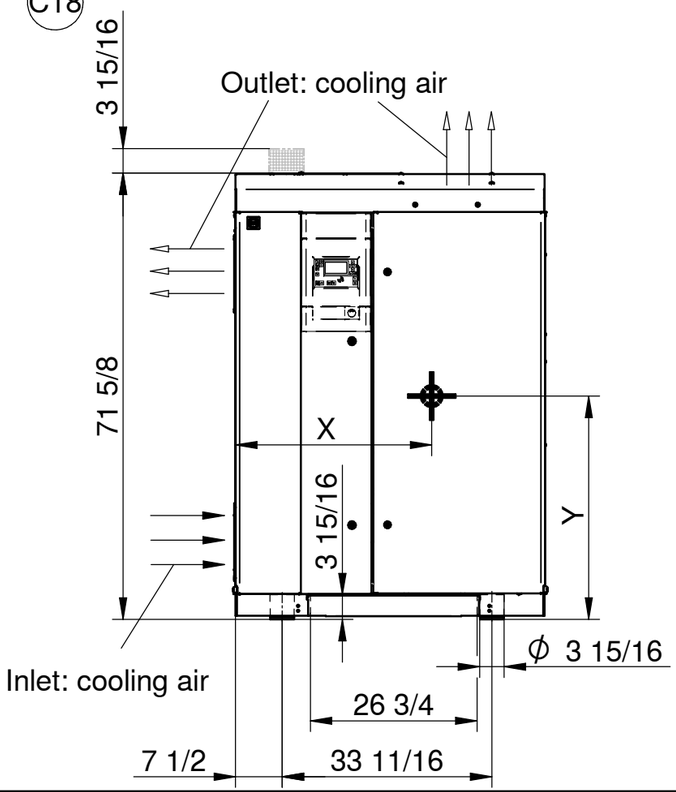












G1	Check valve
H11	Intake from pipeline
C18	Unloaded press. cont. valve

Change number 53949	Projection	Scale 1:20		Date	Name
			Drawn	06.12.2022	BOGISCH2
Document TZM 10476896 USE 01		Original A3	Edited	16.12.2022	BOGISCH2
			Released	05.01.2023	MLYNEK1
Document TZD 10476896 D 01	Designation EBS.2 SFC/STC pr				
Status Released	Dimension and connection dim.				

KAESER KOMPRESSOREN

Language USE | Sheet 1 / 1

Stand 18_02_2021

: Center of gravity
Position marginally dependent on design

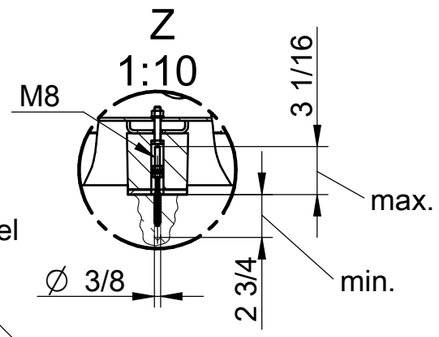
SFC / STC						
Model	Nominal power	A/A***	X*	Y*	Z*	Weight **
CBS 121	10 hp	3 7/8 / 4 1/4	24 7/16 / 25 3/16	22 7/16 / 23 1/4	31 7/8 / 32 11/16	~ 1338/1320 lb
	15 hp					
	20 hp		24 13/16 / 25 9/16	22 13/16 / 23 5/8	31 1/2 / 32 5/16	~ 1371/1342 lb
	25 hp		25 3/16 / 26	23 7/16 / 24	31 1/8 / 31 7/8	~ 1371/1375 lb
	30 hp		25 9/16 / 26 3/8	23 5/8 / 24 7/16	30 11/16 / 31 1/2	~ 1373/1441 lb

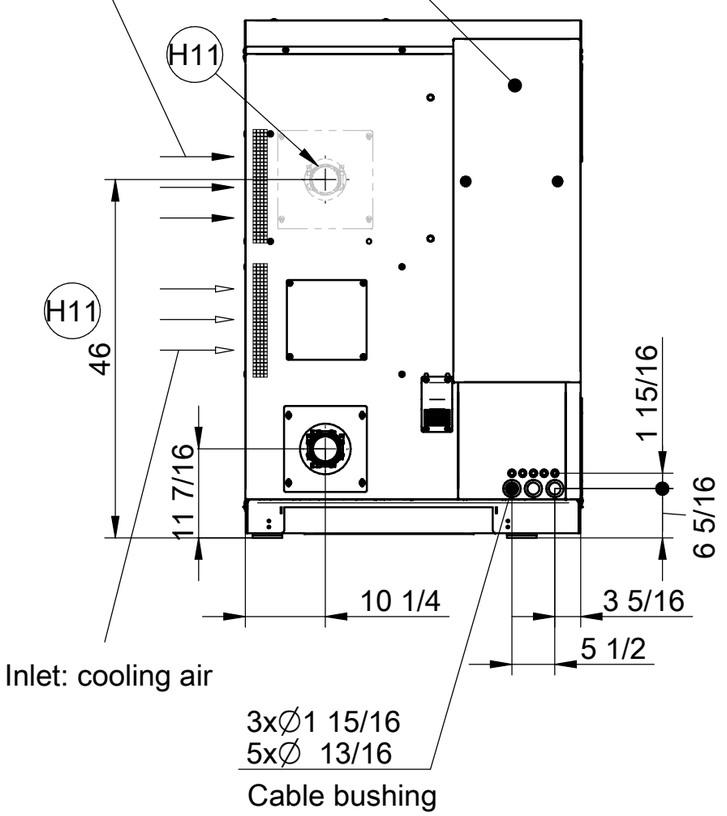
* (approximate dimensions)

** Nominal value: Actual value depends on design

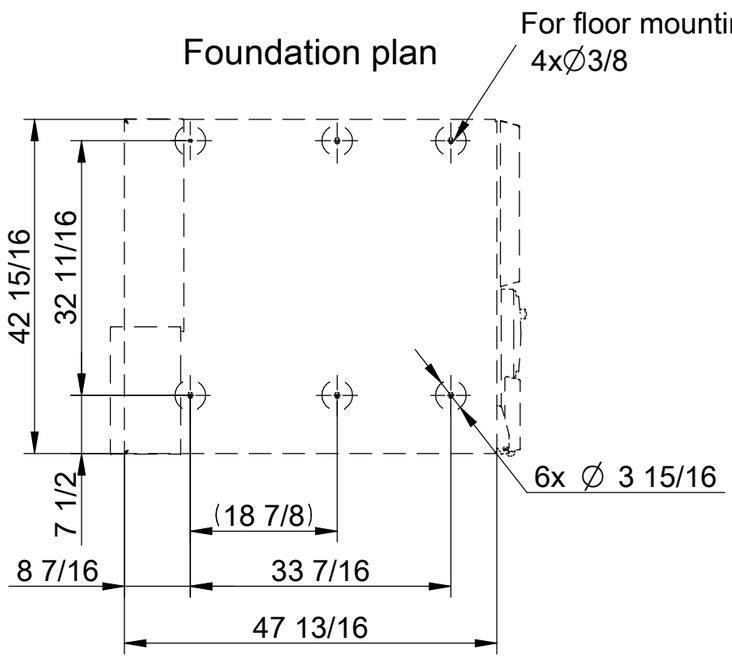
*** Dimensions without check valve

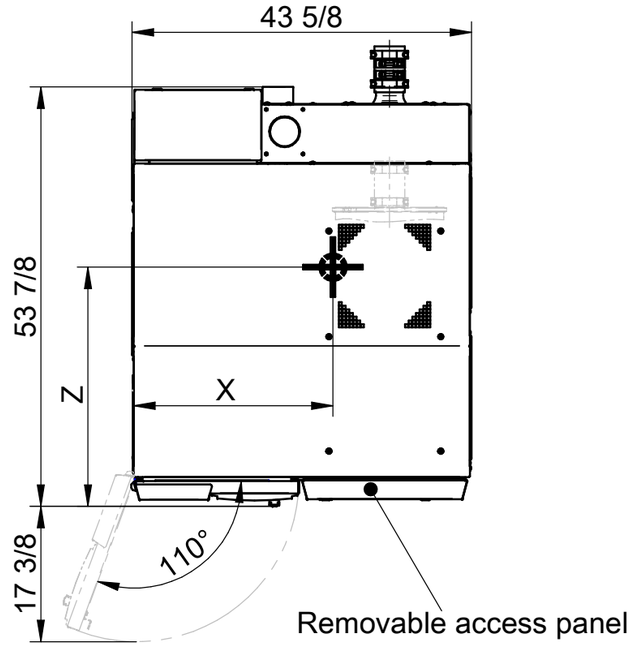
Dimensions shown in inches

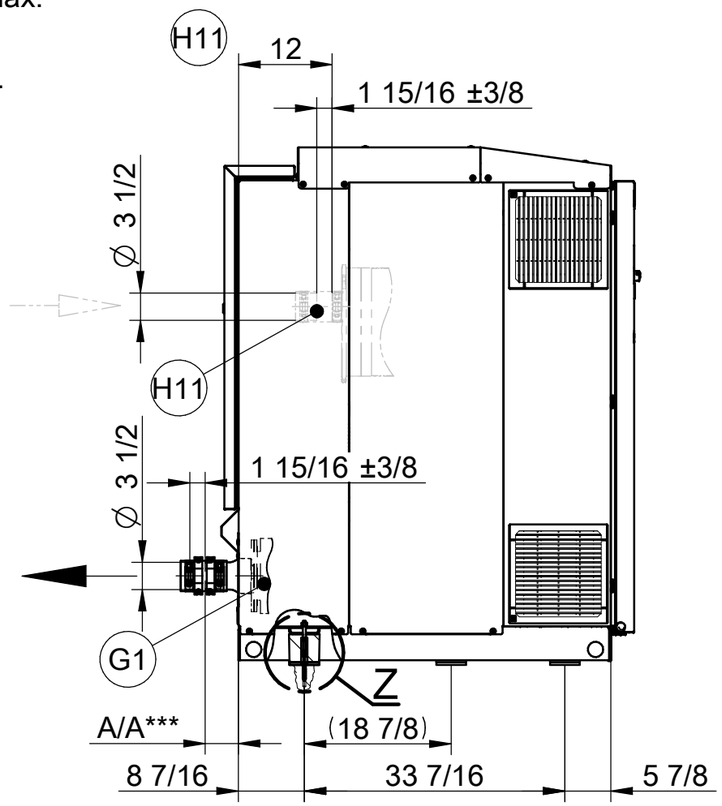


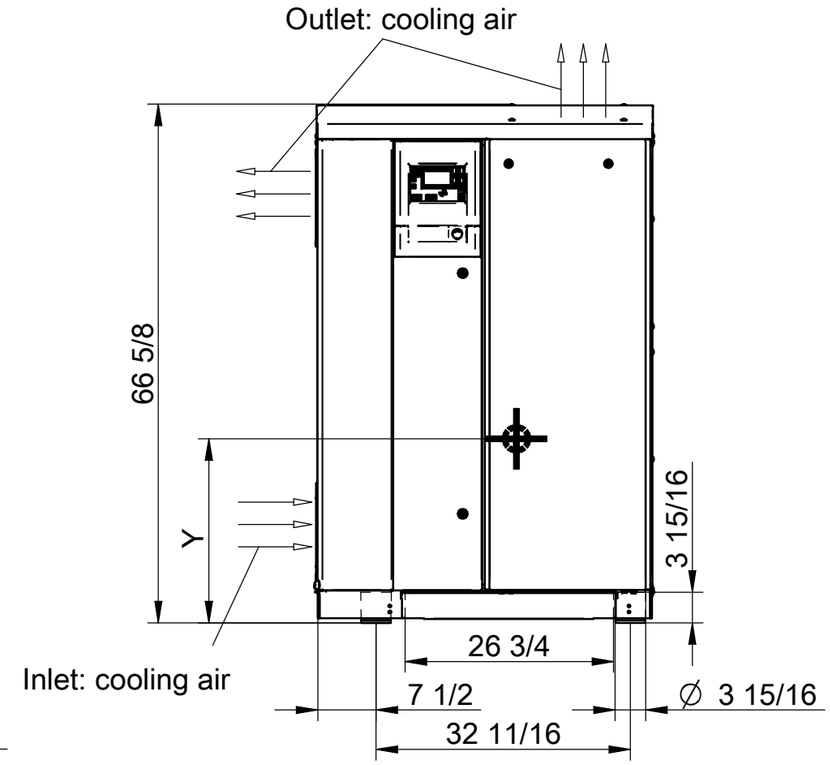


Foundation plan









G1	Check valve
H11	Intake from pipeline

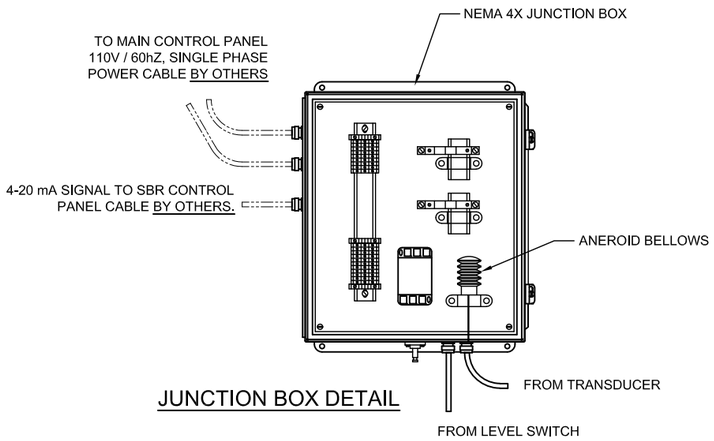
Change number	Projection	Scale 1:20		Date	Name
			Drawn	24.06.2019	BOGISCH2
Document TZM 10438170 USE 00		Original A3	Edited	09.12.2019	BOGISCH2
			Released	09.12.2019	SCHULTZ1
Document TZD 10438170 D 00		Designation CBS.2 SFC/STC pr			
Status Released		Dimension and connection dim.			

KAESER KOMPRESSOREN

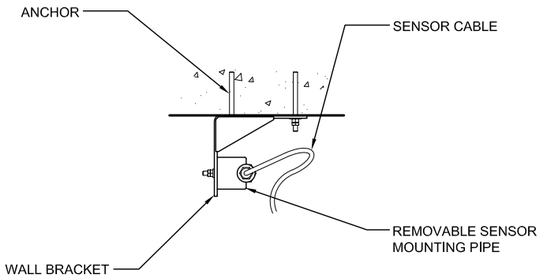
Language: USE

Sheet: 1 / 1

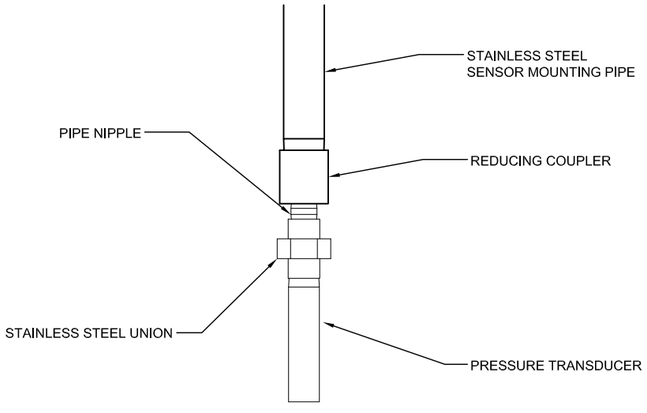
Stand 13.09.2016



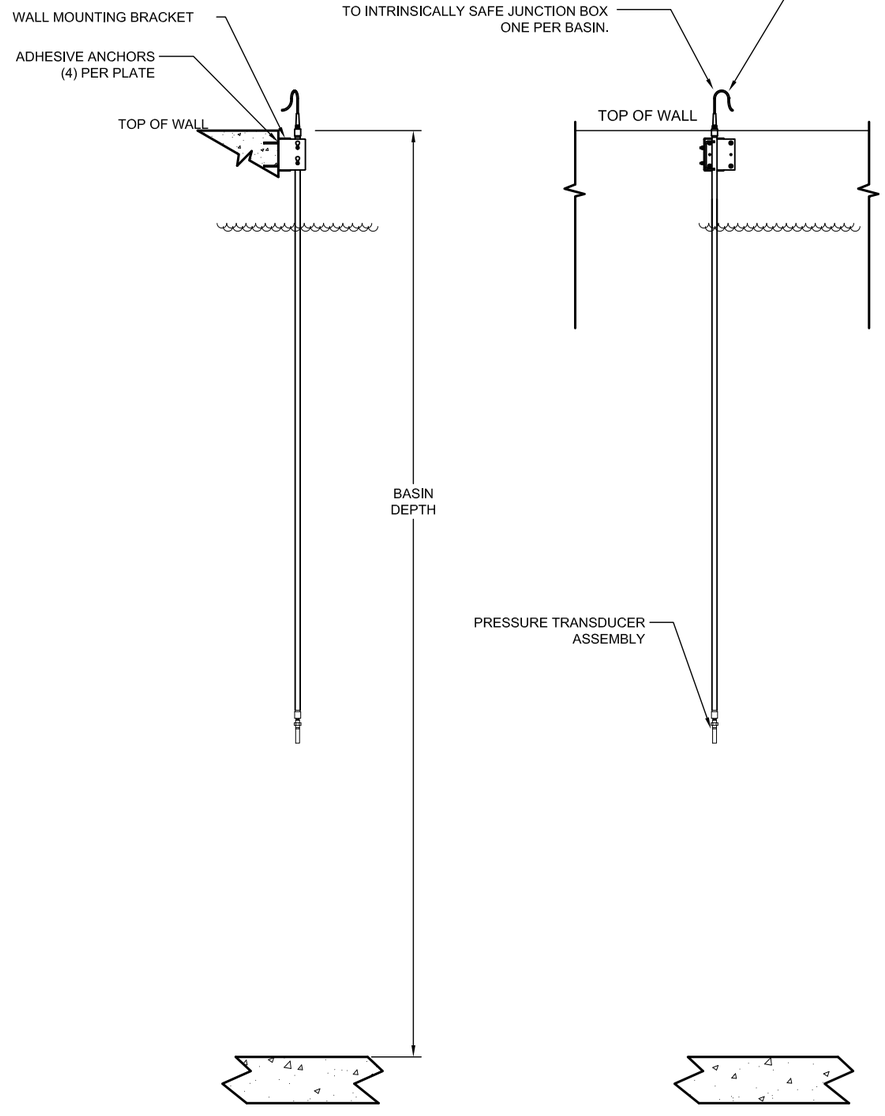
JUNCTION BOX DETAIL



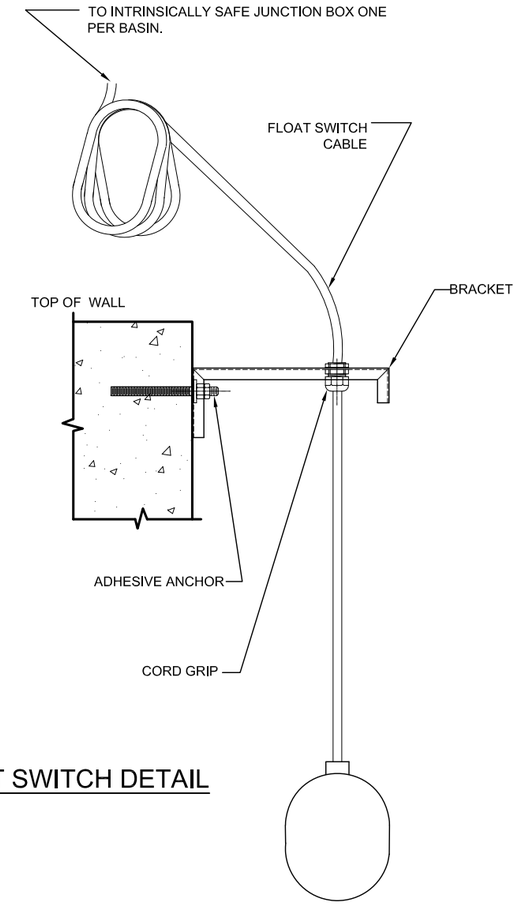
ENLARGED TOP VIEW



ENLARGED SENSOR ASSEMBLY



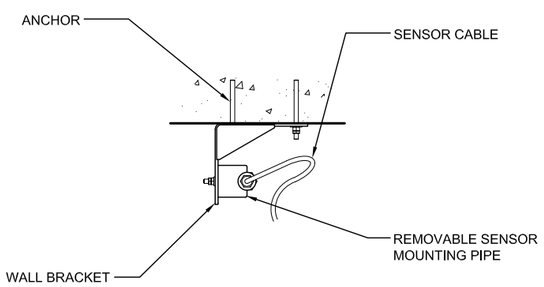
PRESSURE TRANSDUCER DETAILS



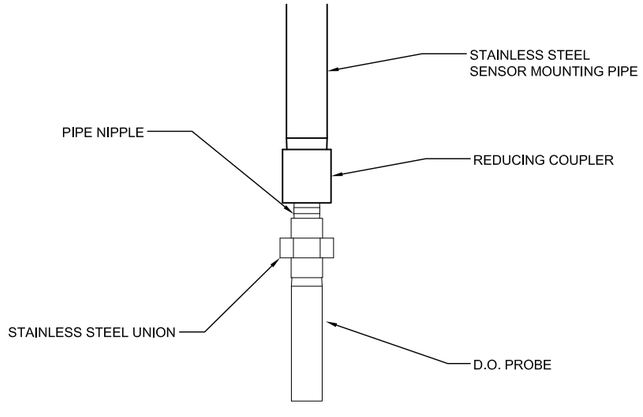
FLOAT SWITCH DETAIL

NOT FOR CONSTRUCTION

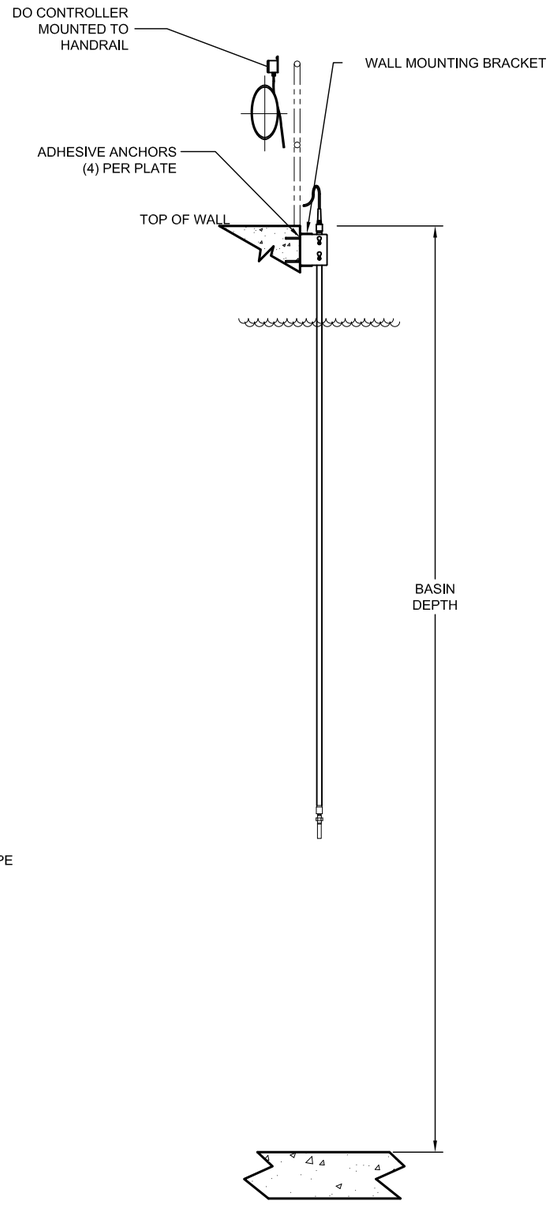
JOB NAME: MILL CITY WWTP					AQUA-AEROBIC SYSTEMS, INC. A Metawater Company
JOB LOCATION: OR					
					DO NOT SCALE DRAWING
					UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES
					FRACTIONAL DIMENSIONS +/- 1/16
					ALL TWO PLACE DECIMALS +/- 0.010
					ALL THREE PLACE DECIMALS +/- 0.005
					ALL ANGLES +/- 1/2° ANSI
					MATERIAL:
					SIMILAR TO:
					TYPE:
					DRAWN BY: ZJD DATE: 2024-05-23
REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION	WEIGHT: SHEET: OF
DRAWING NAME: LEVEL SENSOR DETAILS					DRAWING NUMBER: 81177333006 SCALE: SIZE: D

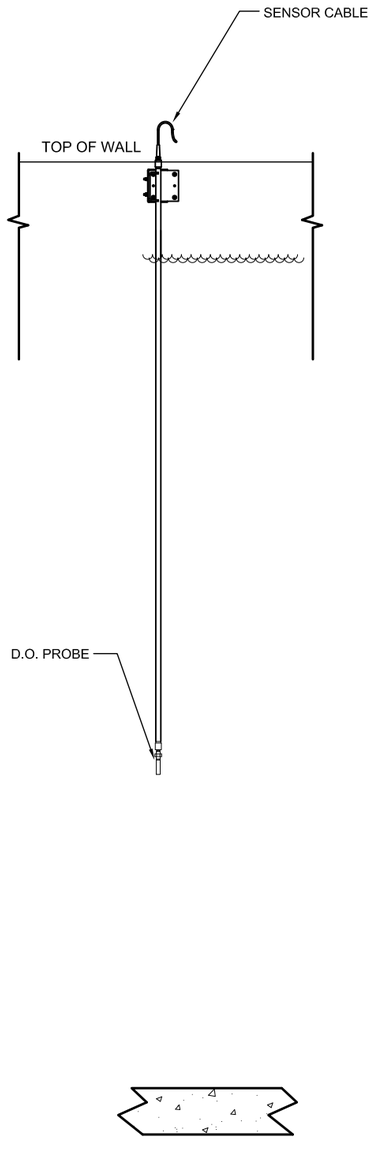


ENLARGED TOP VIEW



ENLARGED SENSOR ASSEMBLY





DISSOLVED OXYGEN & PH PROBE DETAILS

NOT FOR CONSTRUCTION

JOB NAME:	JOHN DAY WWTP
JOB LOCATION:	OR
DRAWING NAME:	DO AND PH SENSOR DETAILS
DRAWING NUMBER:	81166943007
SCALE:	
SIZE:	D
DRAWN BY:	ZJD
DATE:	2025-10-14
WEIGHT:	
SHEET:	OF
MATERIAL:	
SIMILAR TO:	
TYPE:	

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

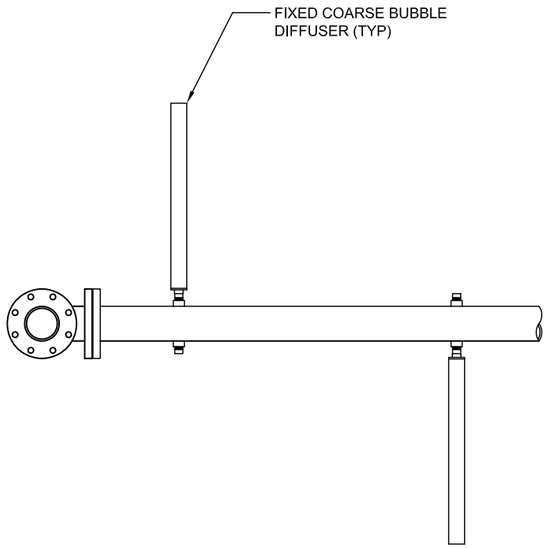
DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES

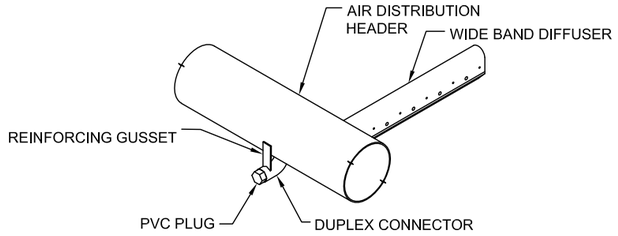
FRACTIONAL DIMENSIONS	+/- 1/16
ALL TWO PLACE DECIMALS	+/- 0.010
ALL THREE PLACE DECIMALS	+/- 0.005
ALL ANGLES	+/- 1/2°

ANSI

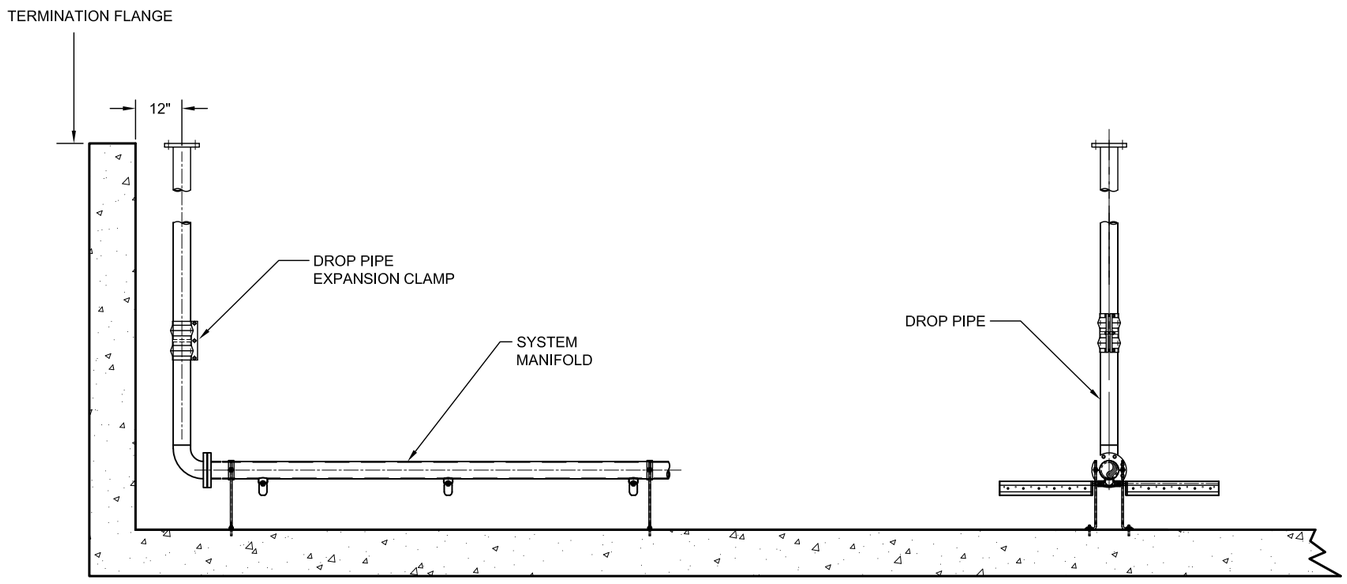
REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION



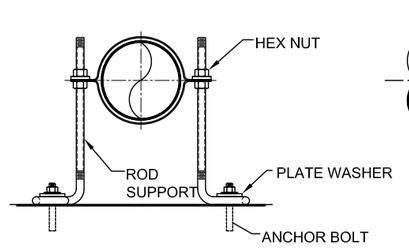
DIFFUSER ASSEMBLY PLAN VIEW



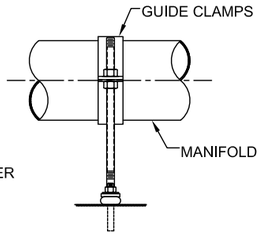
COARSE BUBBLE DIFFUSER



DIFFUSER DROP PIPE ELEVATION VIEWS

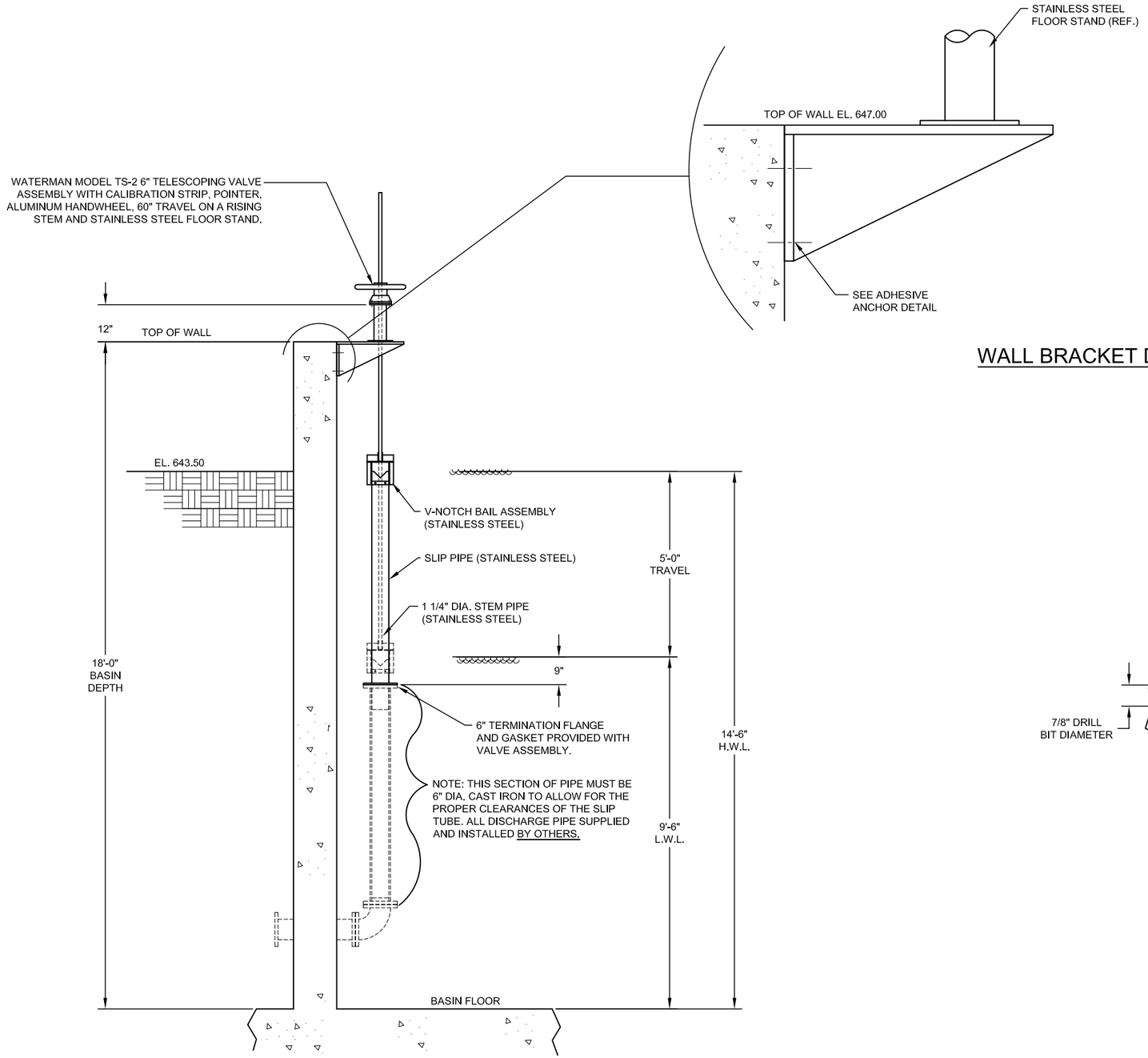


SIMPLE SUPPORT

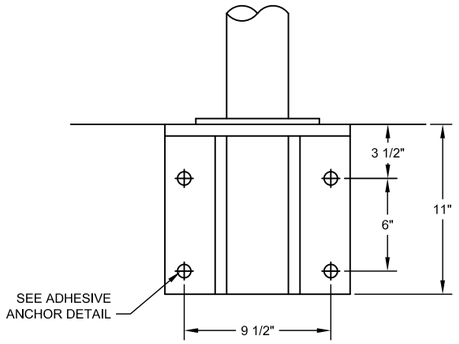


NOT FOR CONSTRUCTION

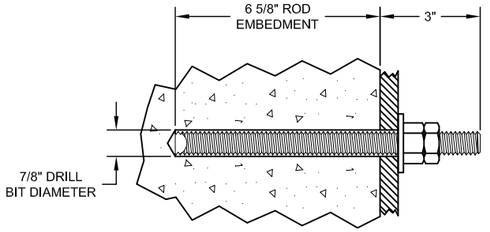
JOB NAME: JOHN DAY WWTP					AQUA-AEROBIC SYSTEMS, INC. A Metawater Company	
JOB LOCATION: OR						
					DO NOT SCALE DRAWING	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES FRACTIONAL DIMENSIONS +/- 1/16 ALL TWO PLACE DECIMALS +/- 0.010 ALL THREE PLACE DECIMALS +/- 0.005 ALL ANGLES +/- 1/2° ANSI
					MATERIAL:	
					SIMILAR TO:	
					TYPE:	
					DRAWN BY: ZJD	DATE: 2025-10-14
REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION	WEIGHT:	SHEET: OF
DRAWING NAME: FIXED COARSE BUBBLE DIFFUSER DETAILS					DRAWING NUMBER: 81166943008	SCALE: SIZE: D



TELESCOPING VALVE
SECTION AND DETAILS



WALL BRACKET DETAIL



3/4" ADHESIVE
ANCHOR DETAIL

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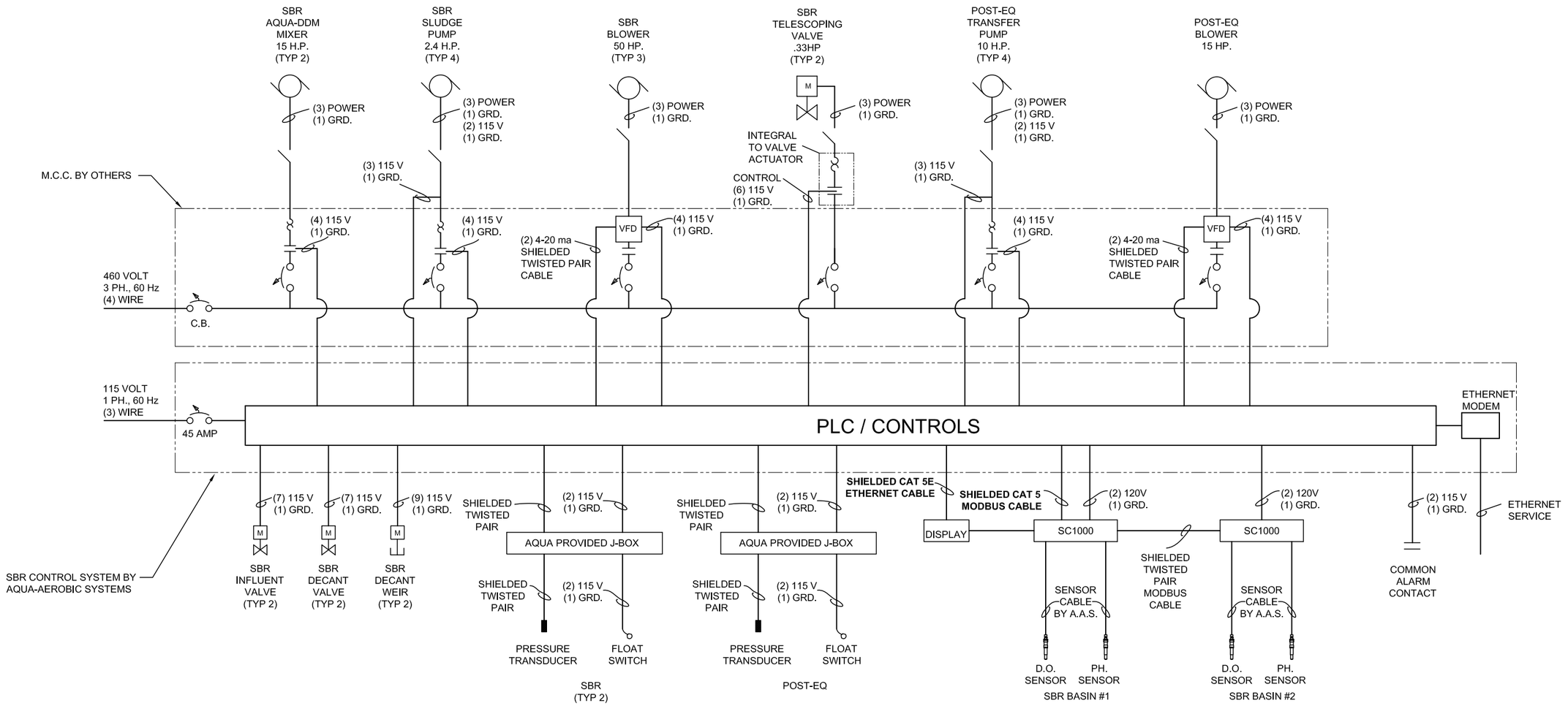
JOB LOCATION: OR					DO NOT SCALE DRAWING — UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES: FRACTIONAL DIMENSIONS +/- 1/16; ALL TWO PLACE DECIMALS +/- 0.010; ALL THREE PLACE DECIMALS +/- 0.005; ALL ANGLES +/- 1/2"; ANSI
					MATERIAL:
					SIMILAR TO:
					TYPE:
					DRAWN BY: ZJD — DATE: 2025-10-14
REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION	WEIGHT: — SHEET: OF
DRAWING NAME: TELESCOPING VALVE					DRAWING NUMBER: 81166943009 — SCALE: — SIZE: D

SYMBOL KEY

	MOTOR		CIRCUIT BREAKER		ELECTRICAL DISCONNECT	VFD	VARIABLE FREQUENCY DRIVE		PRESSURE TRANSDUCER	M	MOTOR OPERATED WEIR		STARTER CONTACTOR
M	MOTOR OPERATED VALVE		D.O. SENSOR PROBE		MOTOR OVERLOAD	P	PNEUMATIC OPERATED VALVE		FUSE		TRANSFORMER	P	PNEUMATIC OPERATED WEIR

NOTE: SOME SYMBOLS MAY NOT BE APPLICABLE



NOTE: IF PUMPS, MIXERS, AND AERATORS ARE PROVIDED A MULTI-CONDUCTOR S.O. CABLE SHALL BE INCLUDED. THE CABLE SHALL TERMINATE AT A JUNCTION BOX/DISCONNECT PROVIDED BY OTHERS.

NOTE: SUBMERSIBLE PUMPS ARE PROVIDED WITH CONTROL WIRES FOR THE THERMAL SWITCH EMBEDDED IN THE WINDINGS OF THE PUMP. (TWO CONTROL AND ONE GROUND)

NOTE: ANCILLARY EQUIPMENT MONITORING AND/OR CONTROL REQUIREMENTS ARE YET TO BE DETERMINED. ELECTRICAL REQUIREMENTS FOR AQUA-AEROBIC SYSTEMS CONTROL PANEL ARE SUBJECT TO CHANGE, PENDING VERIFICATION OF ANCILLARY EQUIPMENT CONTROL FOR MONITORING REQUIREMENTS.

NOTE: IF REQUIRED, SKIMMER LOCAL CONTROL POWER MAY BE PROVIDED VIA ANY SOURCE IN LIEU OF THE SBR CONTROL PANEL.

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JOB LOCATION: OR

AQUA-AEROBIC SYSTEMS, INC.
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DO NOT SCALE DRAWING

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

FRACTIONAL DIMENSIONS	+/- 1/16	ALL TWO PLACE DECIMALS	+/- 0.010
ALL THREE PLACE DECIMALS	+/- 0.005	ALL ANGLES	+/- 1/2°

ANSI

REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION

MATERIAL:
SIMILAR TO:
TYPE:
DRAWN BY: ZJD
DATE: 2025-10-14
WEIGHT:
SHEET: OF
DRAWING NAME: ONE-LINE DIAGRAM
DRAWING NUMBER: 81166943010
SCALE:
SIZE: D

P.& I. DIAGRAM SYMBOL KEY

XXX / XXXXX ← TOP LINE INDICATES FUNCTION AS FOLLOWS:

ZSO	POSITION SWITCH OPEN
ZIO	POSITION INDICATE OPEN
ZAO	POSITION ALARM OPEN
ZSC	POSITION SWITCH CLOSE
ZIC	POSITION INDICATE CLOSE
ZAC	POSITION ALARM CLOSE
ZA	POSITION ALARM
YIR	STATUS INDICATE RUN
YIS	STATUS INDICATE STOP
YAR	STATUS ALARM RUN
YAS	STATUS ALARM
TSH	TEMP. SWITCH HIGH
TSL	TEMP. SWITCH LOW
TAH	TEMP. ALARM HIGH
TI	TEMP. INDICATE
LSLL	LEVEL SWITCH LOW/LOW
LALL	LEVEL ALARM LOW/LOW
LSL	LEVEL SWITCH LOW
LSM	LEVEL SWITCH MID-RANGE
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH/HIGH
LAHH	LEVEL ALARM HIGH/HIGH
LT	LEVEL TRANSMITTER
LI	LEVEL INDICATOR
AIT	ANALYZER INDICATOR/TRANSMITTER
AI	ANALYZER INDICATOR
AT	ANALYZER TRANSMITTER
AAH	ANALYZER ALARM HIGH
AAL	ANALYZER ALARM LOW
ASH	ANALYZER SWITCH HIGH
ASL	ANALYZER SWITCH LOW
FE	FLOW ELEMENT
FI	FLOW INDICATOR
PI	PRESSURE INDICATION
MS	MOISTURE SENSOR
PSV	PRESSURE SAFETY VALVE

XXX / XXXXX ← BOTTOM LINE TAGS EQUIPMENT IDENTIFICATION

XXXXX
- EQUIPMENT NO.
- TANK NO.
- EQUIPMENT I.D.

A0000	AERATOR
B0000	BLOWER
D0000	DECANTER
F0000	FLOAT SWITCH
I0000	INSTRUMENT
M0000	MIXER
P0000	PUMP
S0000	SOLENOID VALVE
V0000	VALVE
W0000	MISC.

XXX / XXXXX — FIELD LOCATED DEVICE (LIMIT SWITCH, TEMP, SWITCH, TRANSMITTER, ETC.)

XXX / XXXXX — CONTROL PANEL MOUNTED INDICATOR OR INSTRUMENT (RUN LIGHT, LEVEL INDICATOR, D.O. TRANSMITTER, ETC.)

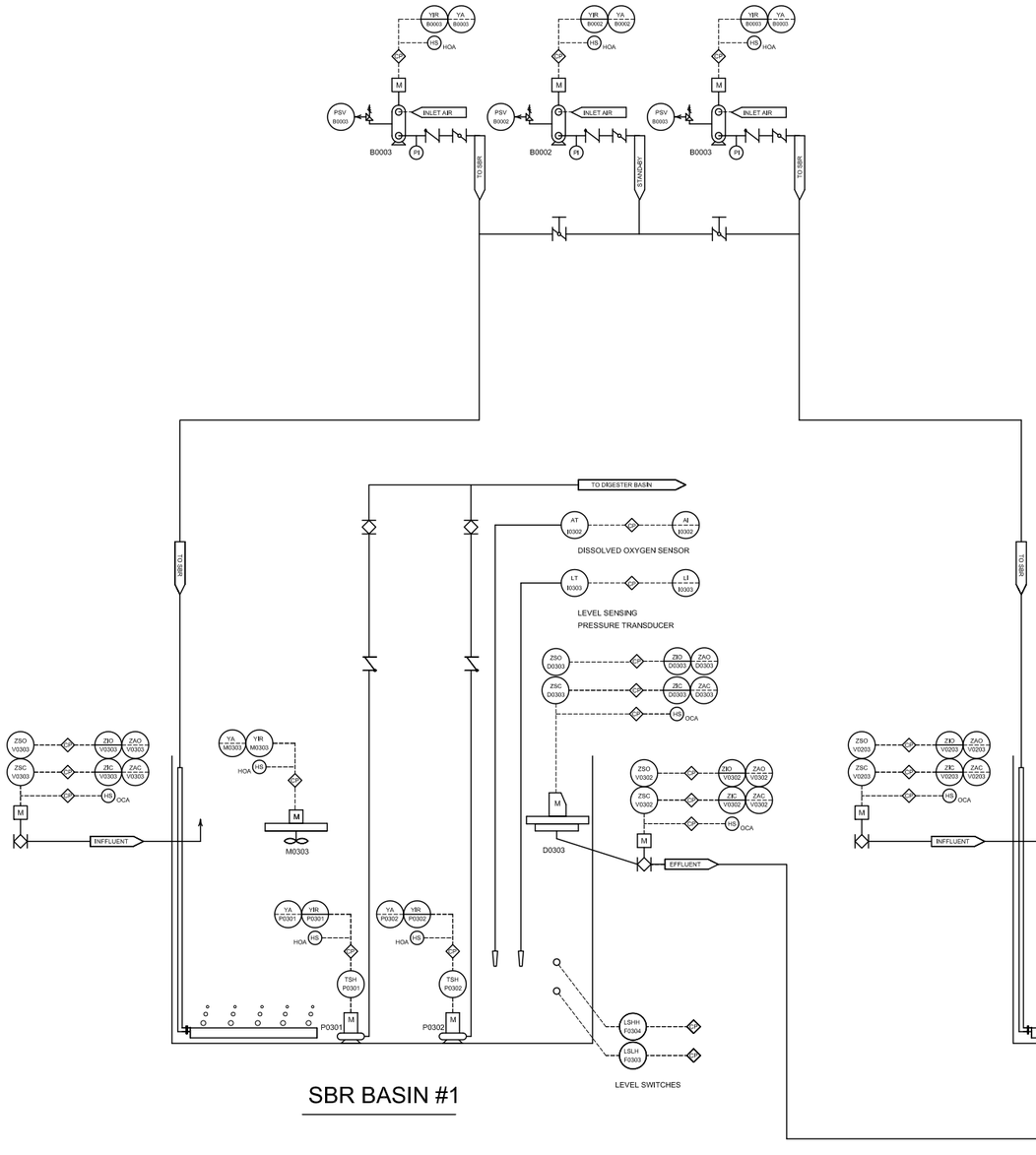
XXX / XXXXX — OPERATOR INTERFACE DISPLAY READOUT (ALARM STATUS, CYCLE STATUS, ETC.)

CP — CONTROL PANEL / FIELD DEVICE TRANSITION POINT

HS XXX — HAND SWITCH
- OCA OPEN/CLOSE/AUTO
- HOA HAND/OFF/AUTO
- HOAB HAND/OFF/AUTO A/AUTO B

M — MOTOR

PB — PUSH BUTTON



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JOB LOCATION:	OR

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FRACTIONAL DIMENSIONS	+/- 1/16
ALL TWO PLACE DECIMALS	+/- 0.010
ALL THREE PLACE DECIMALS	+/- 0.005
ALL ANGLES	+/- 1/2°

ANSI

MATERIAL:	
SIMILAR TO:	
TYPE:	
DRAWN BY: ZJD	DATE: 2025-10-14
WEIGHT:	SHEET: OF

REV	ERN / ECO	DATE	BY	REVISION DESCRIPTION

DRAWING NAME: P&ID

DRAWING NUMBER: 81166943011 — SCALE: — SIZE: D

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

Installation Profiles

10/15/2025

CALEDONIA WWTP — 104455

Address:	8755 CHERRY VALLEY AVENUE, S.E. CALEDONIA,MICHIGAN 49316 USA
Phone:	616-889-7937
Contact:	JOSH MANNARD
Waste Characteristics:	Municipal / Domestic
Use as Reference:	Yes
Treatment Objective:	Nitrification, Denitrification, Phosphorus
StartUp Date:	01/12/1995
Avg. Daily Flow(MGD):	0.5
Max. Design Flow(MGD):	0.75

Equipment:

- 1 Pre-Equalization Basin(s)
  - 1 AquaJet Aerator(s)
- 2 AquaSBR Basin(s)
  - 2 8 x 7 Gravity Decanter(s)
  - 2 AquaDDM Mixer(s)
  - 2 Pump(s)
  - 3 Positive Displacement Blowers
  - 12 Retrievable Coarse Bubble Diffusers
- 2 Sludge Holding Basin(s)
  - 2 Fixed Coarse Bubble Diffusers
  - 2 Positive Displacement Blowers

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CALEDONIA WWTP IMPV MI **104455A**

Address:	8755 CHERRY VALLEY AVENUE, S.E. CALEDONIA,MICHIGAN 49316 USA
Phone:	616-889-7937
Contact:	JOSH MANNARD
Waste Characteristics:	Municipal / Domestic
Use as Reference:	Yes
Treatment Objective:	BOD / Nitrification / Phosphorus / TSS
StartUp Date:	04/28/2022
Avg. Daily Flow(MGD):	0.75
Max. Design Flow(MGD):	1.125

Equipment:

- 3 AquaSBR Basin(s)
  - 3 8 x 7 Gravity Decanter(s)
  - 3 AquaDDM Mixer(s)
  - 3 Positive Displacement Blowers
  - 3 Waste Activated Sludge (WAS) Pump(s)
  - 18 Retrievable Coarse Bubble Diffusers
- 1 Post-Equalization Basin(s)
  - 1 AquaJet Aerator(s)
  - 1 Pump(s)
- 2 Tertiary Filter(s)
  - 4 Disks,PES-14,PS Package
- 2 Aerobic Digester Basin(s)
  - 2 Fixed Coarse Bubble Diffusers
  - 2 Positive Displacement Blowers

JONESTOWN WWTP IMPROVEMENTS PA **107609**

Address:	400 Jonestown Road Jonestown,Pennsylvania 17038 USA
Phone:	717/821-5419 Office
Contact:	James T. Darkes - Plant Superintendent
Waste Characteristics:	Municipal / Domestic
Use as Reference:	Yes
Treatment Objective:	BOD / Denitrification / Nitrification / Phosphorus / TSS
StartUp Date:	06/16/2016
Avg. Daily Flow(MGD):	0.75
Max. Design Flow(MGD):	1.5

LINCOLN CITY PH 1A WWTP IMPROVEMENTS (SBR) OR 107056

Address:	5000 SE Port Ave. Lincoln City,Oregon 97367 USA
Phone:	541/994-4881
Contact:	Dan Christian
Waste Characteristics:	Municipal / Domestic
Use as Reference:	Yes
Treatment Objective:	Nitrification , DeNitrification
StartUp Date:	09/11/2008
Avg. Daily Flow(MGD):	3
Max. Design Flow(MGD):	5.5

Equipment:

- 4 AquaSBR Basin(s)
  - 4 10 x 9 Gravity Decanter(s)
  - 4 AquaDDM Mixer(s)
  - 5 Positive Displacement Blowers
  - 24 Retrievable Fine Bubble Diffusers

MYSTIC FOREST 105231

Address:	938 N. Milford Rd. Highland,Michigan 48357 USA
Phone:	248/789-4665
Contact:	Anthony Dowson
Waste Characteristics:	Municipal / Domestic
Use as Reference:	Yes
Treatment Objective:	Nitrification , DeNitrification , Phosphorus
StartUp Date:	04/25/2001
Avg. Daily Flow(MGD):	1
Max. Design Flow(MGD):	1.8

Equipment:

- 2 AquaSBR Basin(s)
  - 2 8 x 7 Gravity Decanter(s)
  - 2 AquaDDM Mixer(s)
  - 2 Pump(s)
  - 3 Positive Displacement Blowers
  - 14 Retrievable Fine Bubble Diffusers
- 1 Aerobic Digester Basin(s)
  - 1 AquaDDM Mixer(s)
  - 2 Positive Displacement Blowers
  - 2 Retrievable Coarse Bubble Diffusers
- 1 Pre-Equalization Basin(s)
  - 1 Fixed Coarse Bubble Diffusers
  - 1 Positive Displacement Blowers
- 1 Aeration Tank(s)
  - 2 AquaJet Aerator(s)

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SUNLAND WATER DISTRICT, WA **105218**

Address:		137 Fairway Drive. Seqeuim,Washington 98382 USA
Phone:		360-683-3880
Contact:		Willy Burbank
Waste Characteristics:		Municipal / Domestic
Use as Reference:		Yes
Treatment Objective:		Nitrification , DeNitrification
StartUp Date:		10/01/1999
Equipment:	2	AquaSBR Basin(s)
	2	6 x 4 Gravity Decanter(s)
	2	AquaDDM Mixer(s)
	4	Retrievable Coarse Bubble Diffusers
	1	Tertiary Filter(s)
		ADF Disk Package Filter(s)

CARLYON BEACH HOA **105089**

Waste Characteristics:		Municipal / Domestic
Treatment Objective:		Nitrification
StartUp Date:		02/24/1998
Avg. Daily Flow(MGD):		0.093
Max. Design Flow(MGD):		0.12
Equipment:	2	AquaSBR Basin(s)
	2	6 x 4 Gravity Decanter(s)
	2	AquaDDM Mixer(s)
	2	Fixed Fine Bubble Diffusers
	3	Blowers supplied by others

CASCADE LOCKS WWTF OR **116116**

Waste Characteristics:		Municipal / Municipal
Treatment Objective:		BOD / TSS
StartUp Date:		10/25/2023
Avg. Daily Flow(MGD):		0.263
Max. Design Flow(MGD):		0.401
Equipment:	2	AquaSBR Basin(s)
	3	Blowers
	4	Retrievable Fine Bubble Diffusers
	2	AquaDDM Mixer(s)
	2	Pump(s)
	2	6 x 4 Gravity Decanter(s)
	1	Controls

COLLEGE PLACE WWTP **105576**

Waste Characteristics:		Municipal / Domestic
Treatment Objective:		Nitrification
StartUp Date:		01/17/2001
Avg. Daily Flow(MGD):		1.65
Max. Design Flow(MGD):		3.043
Equipment:	3	AquaSBR Basin(s)
	3	10 x 9 Gravity Decanter(s)
	3	AquaDDM Mixer(s) / w/Skimmer
	3	Centrifugal Blowers
	3	Pump(s)
	21	Fixed Fine Bubble Diffusers

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COWICHE, WA **106034/A/B**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification
StartUp Date: 09/05/2002
Avg. Daily Flow(MGD): 0.44
Max. Design Flow(MGD): 0.6

Equipment:
- 4 AquaSBR Basin(s)
  - 4 Fixed Fine Bubble Diffusers
  - 4 6 x 4 Gravity Decanter(s)
  - 4 AquaDDM Mixer(s)

EATONVILLE WWTP **101801B**

Waste Characteristics: Municipal / Domestic
StartUp Date: 06/01/2001
Avg. Daily Flow(MGD): 0.53
Max. Design Flow(MGD): 0.84

Equipment:
- 2 AquaSBR Basin(s)
  - 3 Positive Displacement Blowers
  - 8 Retrievable Fine Bubble Diffusers
  - 2 Pump(s)
  - 2 AquaDDM Mixer(s)
  - 1 6 x 4 Gravity Decanter(s)
  - 1 PLC/SCADA Controls

GOODING WWTP ID **115543**

Waste Characteristics: Municipal / Municipal
Treatment Objective: BOD / Nitrification / Phosphorus / TSS
StartUp Date: 04/04/2040
Avg. Daily Flow(MGD): 0.6
Max. Design Flow(MGD): 0.97

Equipment:
- 2 AquaSBR Basin(s)
  - 2 AquaDDM Mixer(s)
  - 2 Decanters
  - 2 Blowers
  - 2 Pump(s)
  - 6 Retrievable Fine Bubble Diffusers

GOVERNMENT CAMP SANITARY DISTRICT WWTP **105694**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification
StartUp Date: 12/18/2000
Max. Design Flow(MGD): 0.525

Equipment:
- 2 AquaSBR Basin(s)
  - 3 Positive Displacement Blowers
  - 4 Fixed Fine Bubble Diffusers
  - 2 AquaDDM Mixer(s) / w/Skimmer
  - 2 6 x 4 Gravity Decanter(s)

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GUIDE DOGS FOR THE BLIND OR **113233**

Waste Characteristics: NULL /
Treatment Objective: BOD / Denitrification / Nitrification / Phos
StartUp Date: 04/21/2016
Avg. Daily Flow(MGD): 0.007035
Max. Design Flow(MGD): 0.015

Equipment:
- 1 AquaSBR Basin(s)
  - 1 Pump(s)
  - 1 PLC/SCADA Controls
  - 1 AquaCAM-D(s)

HOLMES HARBOR TREATMENT PLANT **104481**

Waste Characteristics: Municipal / Domestic
Treatment Objective: BOD , TSS
StartUp Date: 06/15/1995
Avg. Daily Flow(MGD): 0.1
Max. Design Flow(MGD): 0.2

Equipment:
- 2 AquaSBR Basin(s)
  - 2 6 x 4 Gravity Decanter(s)
  - 2 Influent Baffles
  - 2 AquaDDM Mixer(s)
  - 2 Positive Displacement Blowers
  - 2 Pump(s)
  - 4 Fixed Coarse Bubble Diffusers

ILWACO (CITY OF) WWTF **105093**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification
StartUp Date: 08/27/1998
Avg. Daily Flow(MGD): 0.7

Equipment:
- 2 AquaSBR Basin(s)
  - 2 Pump(s)
  - 2 AquaMJA (Manifold Jet Aeration)
  - 2 10 x 9 Gravity Decanter(s)

ILWACO WWTP EXPANSION, WA **105093a**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification
StartUp Date: 04/05/2004
Avg. Daily Flow(MGD): 0.5
Max. Design Flow(MGD): 1.01

Equipment:
- 1 AquaSBR Basin(s)
  - 1 Pump(s)
  - 1 8 x 7 Gravity Decanter(s)
  - 1 AquaMJA (Manifold Jet Aeration)

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LEWIS COUNTY WATER DISTRICT NO.2 WWTP **105837**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification
StartUp Date: 03/05/2001
Avg. Daily Flow(MGD): 0.18
Max. Design Flow(MGD): 0.2484

Equipment:
- 2 AquaSBR Basin(s)
- 2 6 x 4 Gravity Decanter(s)
- 2 AquaDDM Mixer(s)

LINCOLN CITY PH 1A WWTP IMPROVEMENTS (SBR) OR **107056**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification , DeNitrification
StartUp Date: 09/11/2008
Avg. Daily Flow(MGD): 3
Max. Design Flow(MGD): 5.5

Equipment:
- 4 AquaSBR Basin(s)
- 4 AquaDDM Mixer(s)
- 4 10 x 9 Gravity Decanter(s)
- 5 Positive Displacement Blowers
- 24 Retrievable Fine Bubble Diffusers

LYLE WWTF IMPROVEMENTS, WA **106624**

Waste Characteristics: Municipal / Domestic
Treatment Objective: BOD , TSS
StartUp Date: 01/31/2006
Avg. Daily Flow(MGD): 0.098
Max. Design Flow(MGD): 0.234

Equipment:
- 2 AquaSBR Basin(s)
- 6 Fixed Fine Bubble Diffusers
- 2 AquaDDM Mixer(s)
- 2 6 x 4 Gravity Decanter(s)

MADRAS WWTP, OR **105838/A**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification / Phosphorus
StartUp Date: 06/07/2001
Max. Design Flow(MGD): 1.33

Equipment:
- 2 AquaSBR Basin(s)
- 2 10 x 9 Gravity Decanter(s)
- 1 Pump(s)
- 2 AquaDDM Mixer(s)
- 10 Retrievable Fine Bubble Diffusers
- 4 Positive Displacement Blowers

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MOYIE SPRINGS ID **113692**

Waste Characteristics: Municipal /
StartUp Date: 02/22/2022
Avg. Daily Flow(MGD): 0.083
Max. Design Flow(MGD): 0.133

Equipment:
- 2 AquaSBR Basin(s)
- 3 Positive Displacement Blowers
- 2 AquaDDM Mixer(s)
- 2 Pump(s)
- 2 Retrievable Fine Bubble Diffusers
- 2 6 x 4 Gravity Decanter(s)

NASELLE YOUTH CAMP **104904**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification
StartUp Date: 12/09/1996
Avg. Daily Flow(MGD): 0.035
Max. Design Flow(MGD): 0.086

Equipment:
- 1 AquaSBR Basin(s)
- 1 Pump(s)
- 1 AquaCAM-D(s)

NSD MALTBY WA **114882**

Waste Characteristics: Municipal / Municipal
Treatment Objective: BOD / Denitrification / Nitrification / TSS / UV Disinfect
StartUp Date: 03/10/2020
Avg. Daily Flow(MGD): 0.0028
Max. Design Flow(MGD): 0.028

Equipment:
- 1 AquaSBR Basin(s)
- 1 AquaCAM-D(s)
- 1 Waste Activated Sludge (WAS) Pump(s)

ORTING (CITY OF) WWTP **105208**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification
StartUp Date: 03/25/1999
Avg. Daily Flow(MGD): 1.8
Max. Design Flow(MGD): 4.5

Equipment:
- 3 AquaSBR Basin(s)
- 3 10 x 9 Gravity Decanter(s)
- 3 AquaDDM Mixer(s)
- 2 Positive Displacement Blowers
- 12 Retrievable Fine Bubble Diffusers
- 6 Pump(s)

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PORT OF SUNNYSIDE WWTP, WA **106464**

Waste Characteristics: Municipal / Domestic
Treatment Objective: Nitrification , DeNitrification
StartUp Date: 05/05/2005
Avg. Daily Flow(MGD): 0.55
Max. Design Flow(MGD): 0.55

Equipment:
- 2 AquaSBR Basin(s)
- 5 Positive Displacement Blowers
- 2 AquaDDM Mixer(s)
- 2 8 x 7 Gravity Decanter(s)
- 1 PLC/SCADA Controls
- 1 Fixed Fine Bubble Diffusers

PROSSER WWTP PHASE 1 UPGRADE **106171A**

Waste Characteristics: Municipal / Domestic
Treatment Objective: N/A
StartUp Date: 10/17/2002

Equipment:
- 2 AquaSBR Basin(s)
- 2 8 x 7 Gravity Decanter(s)

PROSSER WWTP WA **106171D**

Waste Characteristics: Municipal / Domestic
Treatment Objective: BOD , Nitrification , TSS
StartUp Date: 08/31/2016
Avg. Daily Flow(MGD): 0.81
Max. Design Flow(MGD): 0.81

Equipment:
- 1 AquaSBR Basin(s)
- 1 Pump(s)
- 1 Fixed Fine Bubble Diffusers
- 1 Decanters
- 2 Mixers

SQUAXIN ISLAND SEWER IMPROVEMENTS **106189**

Treatment Objective: BOD / Denitrification / Nitrification / TSS
StartUp Date: 12/19/2002
Avg. Daily Flow(MGD): 0.06
Max. Design Flow(MGD): 0.09

Equipment:
- 1 AquaSBR Basin(s)
- 2 Blowers
- 2 Retrievable Coarse Bubble Diffusers
- 1 AquaDDM Mixer(s)
- 1 6 x 4 Gravity Decanter(s)

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SUNLAND WATER DISTRICT, WA **105218**

Waste Characteristics:		Municipal / Domestic
Treatment Objective:		Nitrification , DeNitrification
StartUp Date:		10/01/1999
Equipment:	2	AquaSBR Basin(s)
	2	6 x 4 Gravity Decanter(s)
	2	AquaDDM Mixer(s)
	4	Retrievable Coarse Bubble Diffusers

WOODLAND WWTP IMPROVEMENTS **106017**

Waste Characteristics:		Municipal / Domestic
Treatment Objective:		Nitrification
StartUp Date:		04/23/2002
Avg. Daily Flow(MGD):		1.995
Max. Design Flow(MGD):		3.1995
Equipment:	3	AquaSBR Basin(s)
	4	Positive Displacement Blowers
	3	Fixed Coarse Bubble Diffusers
	2	Pump(s)
	3	AquaDDM Mixer(s)
	3	8 x 7 Gravity Decanter(s)

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AquaSBR®

Sequencing Batch Reactor

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

AquaSBR®
Sequencing Batch Reactor

For over 35 years, Aqua-Aerobic Systems has led the industry in sequencing batch reactor technology with performance proven and cost effective treatment systems capable of effectively removing nutrients and reducing phosphorus with the flexibility of process control that adapts to changing demands.

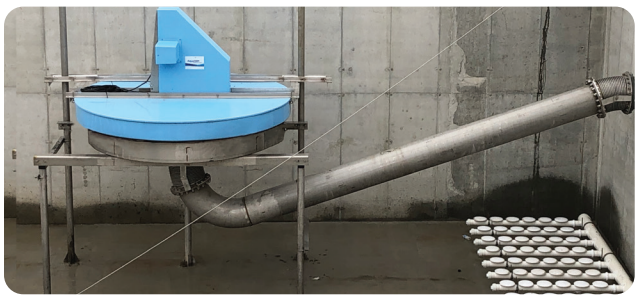
The AquaSBR® sequencing batch reactor provides true batch technology with all phases of treatment accomplished in a single reactor. All components are easily accessible and the advanced decant system ensures optimum quality effluent withdrawal. Treatment can be optimized with the IntelliPro® process monitoring and control system to further reduce operation and maintenance,energy costs and improve performance.

System Features and Advantages

- Independent aeration and mixing with the Aqua MixAir® system provides process advantages and lower energy consumption
- A true-batch system utilizes Mix-Fill, React-Fill, React, Settle and Decant phases within a single reactor
- No secondary clarifiers and return activated sludge (RAS) lines
- All components of the AquaSBR system are retrievable and easily accessible
- Hydraulic fluctuations are easily managed through the flexibility of a time managed process operating strategy
- Enhanced biological nutrient removal:
  - Anaerobic period during Mix-Fill phase to achieve low biological phosphorus requirements
  - Minimize metal salt usage with automated addition after biological luxury uptake to achieve <0.5 mg/l TP
- Ideal for low total nitrogen requirements:
  - Flexibility to modify aeration cycling for TN removal under changing conditions
  - Achieves total nitrogen levels down to 3.0 mg/l
- Low cost of ownership

Aqua MixAir® System

The AquaSBR sequencing batch reactor utilizes the Aqua MixAir® system by providing separate mixing with the AquaDDM® direct-drive mixer and an aeration source such as the Aqua-Jet® surface aerator or Aqua-Aerobic diffused aeration. This system has the capability to cyclically operate the aeration and mixing to promote anoxic/aerobic and anaerobic environments with low energy consumption. In addition, the Aqua MixAir system can achieve and recover alkalinity through denitrification, prevent nitrogen gas disruption in the settle phase, promote biological phosphorus removal, and control certain forms of filamentous bacteria.



Advanced Decanter

The Aqua-Aerobic floating decanter follows the liquid level, maximizing the distance between the effluent withdrawal and sludge blanket. It is an integral component to the AquaSBR system and provides reliable, dual barrier subsurface withdrawal with low entrance velocities to ensure surface materials will not be drawn into the treated effluent. The decanter is easily accessible from the side of the basin and requires minimal maintenance.

Typical AquaSBR® Applications

Biological Nutrient Removal

- 1.65 MGD Avg. Daily Flow
- Replaced flow-through activated sludge system for enhanced biological nutrient removal (EBNR) to meet Chesapeake Bay Initiative

Phosphorus Removal

- 2.7 MGD Avg. Daily Flow
- Dissolved oxygen control optimizes power consumption
- Process control achieves 98% removal of total influent phosphorus

Nitrification

- 0.8 MGD Avg. Daily Flow
- Dual basin system utilizes process control via IntelliPro® system

Reuse

- 2.0 MGD Avg. Daily Flow
- 3-basin system followed by (2) AquaDisk® cloth media filters produces reuse quality water

Industrial Pretreatment

- .075 MGD Avg. Daily Flow
- Treating high strength dairy waste since 1991

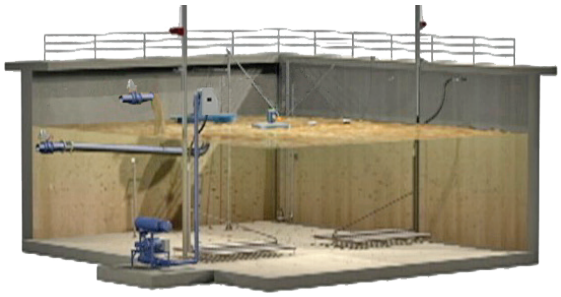
Retrofit

- 0.88 MGD Avg. Daily Flow
- Dual basin retrofit uses existing oxidation ditch to provide treatment flexibility and power savings

AquaSBR®
Phases of Operation

The AquaSBR sequencing batch reactor system features time-managed operation and control of aerobic, anoxic and anaerobic processes within each reactor including equalization and clarification. The AquaSBR system utilizes five basic phases of operation to meet advanced wastewater treatment objectives. The duration of any particular phase may be based upon specific waste characteristics and/or effluent objectives.

1 Mix-Fill

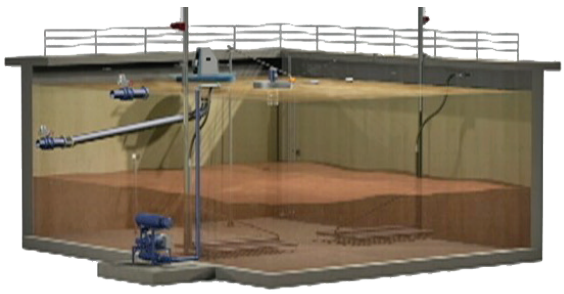


- Influent flow enters the reactor
- Mixing is initiated with the AquaDDM mixer to achieve complete mix of the reactor contents in the absence of aeration
- Anoxic conditions are created which facilitate removal of any residual nitrites/nitrates (NO_x) via the process of denitrification
- In systems requiring phosphorus removal, the Mix-Fill phase is extended to create anaerobic conditions where phosphorus accumulating organisms (PAO) release phosphorus then ready for subsequent luxury uptake during aeration times
- Anoxic conditions assist in the control of some types of filamentous organisms

3 React

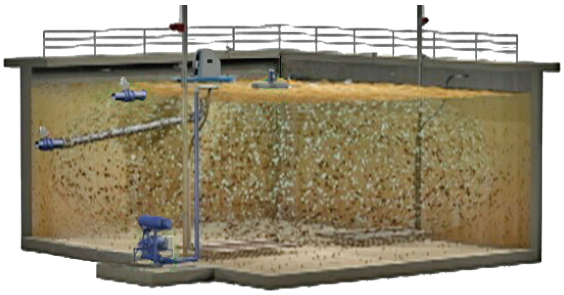
- Influent flow is terminated creating true batch conditions
- Mixing and aeration continue in the absence of influent flow
- Biological/chemical oxygen demand (BOD/COD) and ammonia nitrogen (NH_3) reduction continue under aerated conditions
- Oxygen can be delivered on a “as needed” basis via dissolved oxygen probes while maintaining completely mixed conditions
- Provides final treatment prior to settling to meet targeted effluent objectives

4 Settle



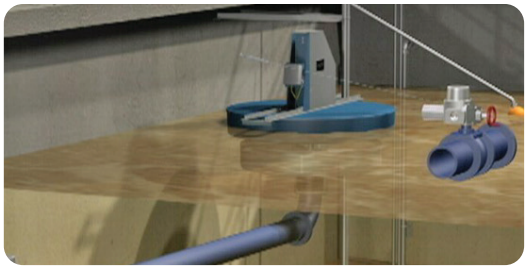
- Influent flow does not enter the reactor
- Mixing and aeration are terminated
- Ideal solids/liquid separation is achieved due to perfectly quiescent conditions
- Adjustable time values allow settling time to match prevailing process conditions

2 React-Fill



- Influent flow continues under mixed and aerated conditions
- Intermittent aeration may promote aerobic or anoxic conditions
- Biological/chemical oxygen demand (BOD/COD) and ammonia nitrogen (NH_3) are reduced under aerated conditions
- Luxury uptake of phosphorus is produced under aerated conditions
- NO_X is reduced under anoxic conditions
- Separation of aeration and mixing allows the aeration source to be turned down during low flow conditions to conserve energy while the system's flexibility allows nitrification/denitrification to be easily managed

5 Decant/Sludge Waste



- Influent flow does not enter the reactor
- Mixing and aeration remain off
- Decantable volume is removed by subsurface withdrawal
- Floating decanter follows the liquid level, maximizing distance between the withdrawal point and the sludge blanket
- Small amount of sludge is wasted near the end of each cycle

IntelliPro®

Process Monitoring and Control System

The IntelliPro system is a personal computer (PC) based program that interfaces with the AquaSBR system's programmable logic controller (PLC) via a network connection to assist operators in optimizing the treatment process of the plant and further reducing operating costs.

System Advantages

- Real-time, online monitoring and control
- "Active Control Mode" which automatically receives, interprets and proactively adjusts in-basin instruments and process variables including biological nutrient removal, chemical addition and energy
- Reduces the operator's sampling time
- Real-time and historical graphical trending of process parameters
- BioAlert™ process notification provides corrective action to eliminate operational interruptions and upsets
- Assists in the optimization of enhanced nutrient removal
- Online operation and maintenance support
- Remote troubleshooting provides on-demand troubleshooting assistance

Since 1969, Aqua-Aerobic Systems, Inc. has led the industry by providing advanced solutions in water and wastewater treatment. As an applied engineering company serving both municipal and industrial customers, we work collaboratively with consulting engineers, owners, plant managers, and operators to design and manufacture the best treatment solution with the lowest lifecycle cost.

Providing TOTAL Water Management Solutions

- Aeration & Mixing
- Biological Processes
- Filtration
- Oxidation & Disinfection
- Membranes
- Controls & Monitoring Systems
- Aftermarket Products and Services

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Bulletin #980D 4/22

AQUA-AEROBIC SYSTEMS, INC.
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AquaSBR® Sequencing Batch Reactor Operational Description

Phase Descriptions for Diffused Aeration

Mix Fill Phase

Prior to the start of the Mix Fill phase, the reactor contents exist in a stratified condition. The bottom portion of the reactor consists of settled sludge, and the top portion consists of a clear supernatant. At this point in time, the reactor has recently completed a Decant cycle, and the overall water depth is equal to the minimum side water depth (SWD).

The reactor environment has been "conditioned" by events that occurred during the prior cycle. First, the reactor environment has been conditioned by the termination of flow (and associated organic loading) to the reactor as the React Fill phase was completed. Second, the completion of the React phase provided the opportunity for the wastewater contaminants in the reactor to be "polished off". Third, the absence of mixing and aeration during the Settle, Decant, Idle and Waste Sludge phases further conditioned the reactor environment.

Typically, the settled sludge zone will contain the majority of the microbial life. This microbial life continues a certain level of respiration and effectively depletes this settled sludge zone of any dissolved oxygen (D.O.).

The supernatant layer above the settled sludge zone represents a significant fraction (typically 50 % to 70 %) of the reactor volume. Since the majority of the microbial life has settled to the bottom of the reactor, the relative effect of microbial respiration in the supernatant layer (compared to the sludge mass layer) is generally reduced. Therefore, the D.O. concentration in the supernatant layer typically ranges from 0.50 to 1.5 mg/l prior to the start of the Mix Fill phase.

The water in the supernatant layer is generally of reasonably good quality with respect to the concentration of specific wastewater parameters. Residual soluble levels of organic material (as determined by a BOD_5 measurement) are present in concentrations at or below the anticipated effluent value. Total suspended solids (TSS), total nitrogen (Tot-N) and total phosphorus (Total P) are also present in concentrations at or below the anticipated effluent concentrations.

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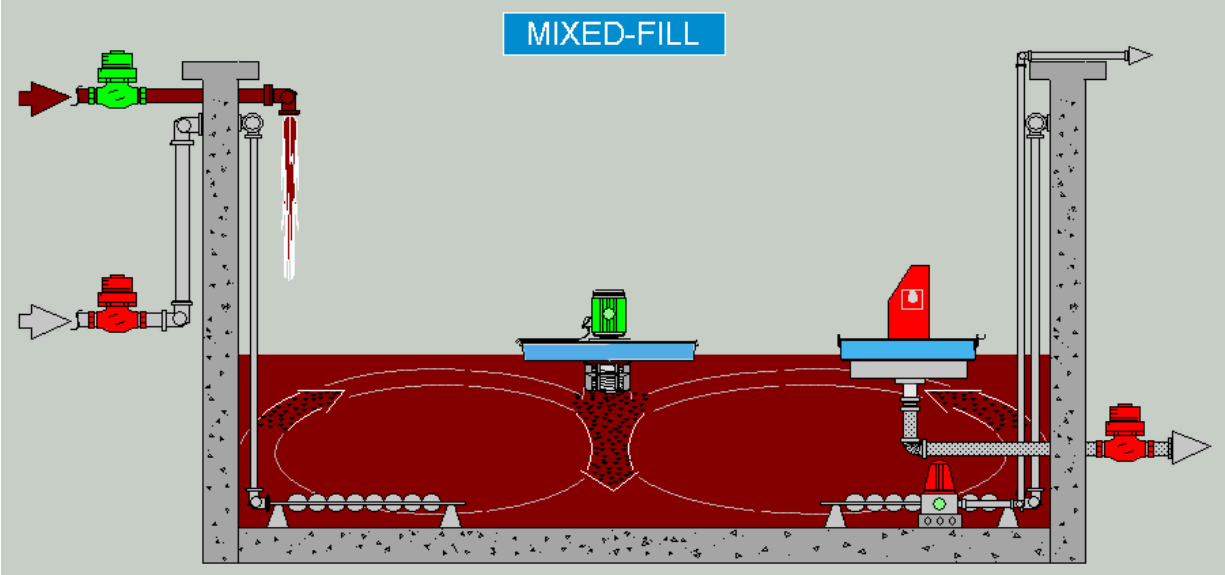
As the Mix Fill phase of operation begins, wastewater flow is initiated to the reactor and the AquaDDM mixer is turned on. At this point, the AquaDDM begins mixing the reactor while the air supply system remains off and is not providing oxygen to the reactor. The stratified condition of the reactor that existed in the preceding phases is now converted to a completely mixed condition. The settled biomass is now resuspended and combined with the previously isolated supernatant layer and the raw wastewater entering the reactor. A schematic of this phase of operation, along with its associated process and mechanical considerations, is shown in Figure 1.

Mix Fill Phase (Figure 1)



Process Considerations	Mechanical Considerations
Zero or Near Zero D.O.	Mixer Operating
Complete Mix Conditions	Influent Valve Open/Transfer Pump Operating
Denitrification	Aeration System Off
Phosphorus Release	Sludge Pump Off
Sludge Conditioning	Decant Weir Closed
Filamentous Control	

As raw wastewater continues to flow into the reactor, the completely mixed condition results in the dispersal of the microbial life and incoming wastewater throughout the reactor. The residual level of D.O. that existed in the supernatant layer is rapidly depleted as a result of microbial respiration being effective throughout the entire reactor volume.

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As raw wastewater enters the reactor, the amount of organic material (as measured by the soluble BOD_5 concentration) present in the reactor increases. Since an aerobic phase has not yet been initiated in this cycle, biological degradation of the organic material in the influent wastewater is limited.

The concentration of Total Kjeldahl nitrogen (TKN) in the reactor also increases. The TKN consists of organic nitrogen (Org-N) and ammonia nitrogen (NH_3-N). By the process of hydrolysis (with or without oxygen present), the majority of the organic nitrogen is converted to ammonia nitrogen. The ammonia nitrogen must then be oxidized by the nitrification process. In the presence of oxygen, the nitrification process converts the ammonia nitrogen to nitrate nitrogen (NO_3-N). However, since an aerobic phase has not yet been initiated, active nitrification is not occurring.

Due to the absence of D.O. in the reactor, denitrification is capable of occurring during the Mix Fill phase. As a result, the residual level of nitrate nitrogen that previously existed in the supernatant layer is depleted to a near-zero concentration level. The denitrification process converts the nitrate nitrogen to nitrogen gas (N_2), and the nitrogen gas is subsequently released to the atmosphere.

The Mix Fill phase, in combination with the "non-aerated" periods during the React Fill and React phases, can be effective in producing an extremely low NO_3-N concentration in the system effluent. However, since the nitrogen that enters the reactor is generally not in the form of NO_3-N, the amount of denitrification that occurs during the Mix Fill phase is limited to the residual NO_3-N from the previous cycle.

Before the nitrogen in the influent can be denitrified, it must first be nitrified during the aerated periods of the React Fill and React phases. Therefore, a relatively small fraction of the total nitrogen removal requirement is accomplished during the Mix Fill phase.

At the start of the Mix Fill phase, the effective mixing of the biomass with the influent wastewater in an anoxic environment results in a substantial release of phosphorus from the cell mass to the liquid medium. This phosphorus is now distributed throughout the entire reactor volume. A typical monitoring program would indicate a steady increase in the concentration of phosphorus during the Mix Fill phase. The rate of this increase is significantly greater than what could be attributed to the contribution of phosphorus present in the raw wastewater.

The use of anoxic conditioning of the sludge mass can be highly effective with respect to improved settling characteristics and controlling the predominance of filamentous organisms in the treatment system. The Mix Fill phase of operation readily creates an anoxic condition throughout the entire reactor. A treatment cycle structure which incorporates this repetitive phase of operation can be effective in avoiding or controlling the predominance of filamentous populations in the reactor.

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In summary, the Mix Fill phase of operation is characterized by a completely mixed anoxic environment in the reactor. The reactor contains a uniform blend of raw influent wastewater, previously settled biomass, and supernatant from the previous cycle. The environment is classified as anoxic with D.O. concentrations at or near zero. Effluent quality parameters will provide the system operator with a basis for determining the necessity of adjusting the specific duration of this phase of operation. In essence, this phase is utilized for denitrification, biological phosphorus release, and anoxic conditioning of the sludge mass.

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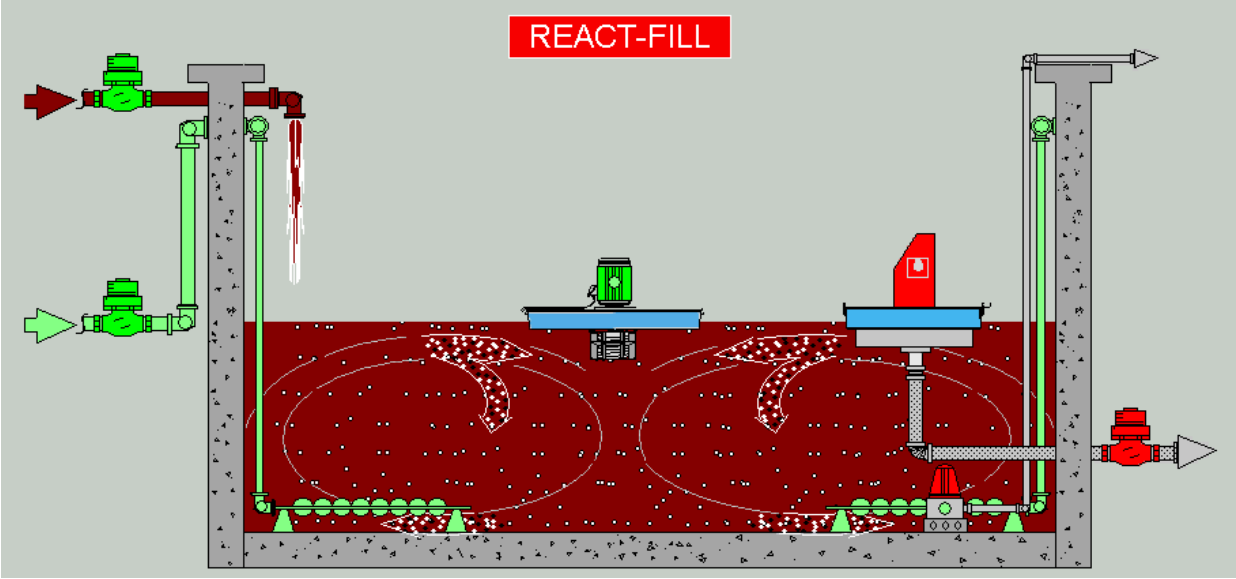
React Fill Phase

During the React Fill phase of operation, wastewater continues to enter the reactor, and the air supply system begins delivering oxygen to the reactor. The AquaDDM mixer continues to operate, and the completely mixed environment is maintained. The introduction of oxygen converts the reactor from an anoxic environment to an aerobic environment. Since the AquaSBR was designed to achieve nitrification and denitrification, the aeration system is cycled on and off during the React Fill phase. This alternately creates aerobic and anoxic conditions. Refer to "AquaSBR Description of Operation" for the specific aeration cycle times.

Nitrification occurs during the aerated periods of operation, and denitrification occurs during the non-aerated periods of operation. Although BOD_5 reduction normally occurs under aerobic and anoxic conditions, the rate of BOD_5 reduction is much greater during the aerated periods of operation. A schematic of the React Fill phase of operation is shown in Figure 2.

React Fill Phase (Figure 2)



Process Considerations	Mechanical Considerations
Alternating Aerobic/Anoxic Conditions	Mixer Operating
Complete Mix Conditions	Influent Valve Open/Transfer Pump Operating
BOD_5 Reduction	Aeration System On/Off
Nitrification/Denitrification	Sludge Pump Off
Phosphorus Uptake	Decant Weir Closed

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The wastewater that has entered (and continues to enter) the reactor represents a certain potential oxygen demand. The oxygen demand is due to the aerobic metabolism of the organic constituents (i.e. BOD_5 reduction) and the nitrification of NH_3-N. The aeration system has been sized to meet this oxygen demand.

The dissolved oxygen (D.O.) concentration profile in the reactor will normally reveal a pattern of increasing D.O. concentration during the aerated periods, followed by decreasing D.O. concentration (to near-zero) during the non-aerated periods. In other words, the D.O. concentration will reach a peak value at the end of each aeration period.

The repetitive on/off cycling of the air supply will also produce a pattern of increasing peak D.O. concentration with each successive aerated period. This is the result of the system achieving an ever-increasing degree of treatment as this phase progresses. As the degree of treatment increases, a steady decline in the oxygen uptake rate (OUR) of the biomass will result. The exact magnitude of this decline will be affected by the loading to the system and the duration of each of the individual phases of a complete treatment cycle.

The concentration of total nitrogen present in the reactor will steadily decline as the React Fill phase is completed. The nitrification and denitrification processes typically reduce total nitrogen concentrations in the reactor as the raw waste flow continues to enter the reactor with additional nitrogen. In other words, the rates of nitrification and denitrification are typically more than sufficient to offset the rate of nitrogen entering the reactor.

Nitrification is a two-step process involving two individual groups of microorganisms, namely Nitrosomonas and Nitrobacter. This process does not remove nitrogen from the wastewater. It merely converts it from one form of nitrogen to another form of nitrogen. In the presence of oxygen, ammonia nitrogen (NH_3-N) is first converted to nitrite nitrogen (NO_2-N) by the Nitrosomonas. The nitrite nitrogen is then converted to nitrate nitrogen (NO_3-N) by the Nitrobacter. Since the Nitrobacter are generally much faster "workers" than the Nitrosomonas, the NO_2-N concentration in the reactor is usually negligible.

Nitrogen is actually removed from the wastewater by the denitrification process. Denitrification is performed by a broad range of microorganisms, collectively known as "heterotrophs", that are present in most wastewater treatment systems. In the absence of oxygen, these heterotrophs convert nitrate nitrogen to nitrogen gas (N_2). The nitrogen gas is subsequently released from the reactor into the atmosphere.

The amount of soluble organic material (as evidenced by the BOD_5 concentration) in the reactor will typically decrease during the React Fill phase. During this phase, biological oxidation occurs simultaneously with the addition of organic material to the reactor. The decline in BOD_5 concentration will closely parallel the pattern observed for the total nitrogen concentration.

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During the initial period of the React Fill phase, the onset of aerobic conditions in the reactor allows the microorganisms to "take in" phosphorus. Therefore, the phosphorus that was previously released into solution (during the Mix Fill phase) is now taken back into the cell mass. The phosphorus present in the influent is also taken in by the biomass.

Since the microorganisms were previously "depleted" of phosphorus, they have a tendency to take in more phosphorus than the amount that is necessary to meet their nutritional requirements. The term used to describe this phenomenon is "enhanced biological phosphorus removal". The anoxic periods during the React Fill and React phases are not long enough to allow a re-release of phosphorus from the biomass into the liquid medium. Therefore, the effluent from the reactor will contain a low concentration of total phosphorus.

Effluent quality parameters will provide the operator with a basis for determining the necessity of adjusting the duration of the React Fill phase and/or the aeration on/off cycle structure. In summary, the React Fill phase features a reactor that is always in a completely mixed condition that alternates between an aerobic and anoxic environment.

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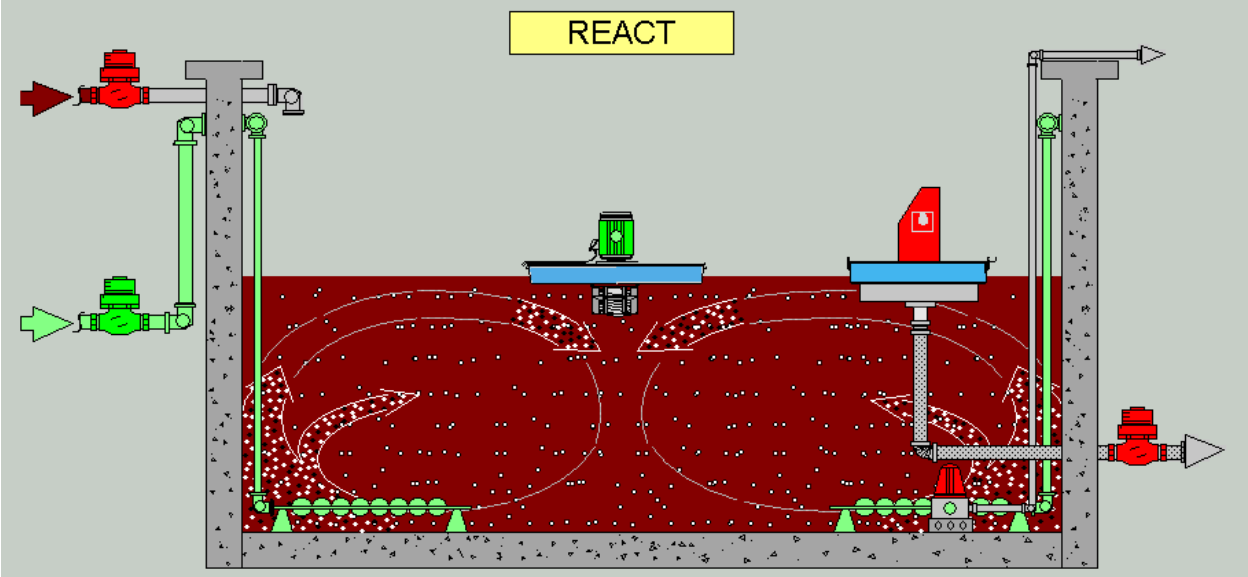
React Phase

During the React phase of operation, wastewater is not entering the reactor. The AquaDDM mixer continues to operate and completely mix the reactor, and the aeration system continues to be cycled on and off. This alternately creates aerobic and anoxic conditions. A schematic of this phase is shown in Figure 3.

React Phase (Figure 3)



Process Considerations	Mechanical Considerations
Alternating Aerobic/Anoxic Conditions	Mixer Operating
Complete Mix Conditions	Influent Valve Closed/Transfer Pump Off
"Polishing Off" BOD_5 and Total N	Aeration System On/Off
	Sludge Pump Off
	Decant Weir Closed

The importance of this phase should be recognized by the operator with respect to the "opportunity" that this phase provides to "reduce the concentration levels of all wastewater parameters without the influence of additional wastewater entering the reactor." In effect, the React phase provides a period of time in which wastewater contaminants are "polished off" to the desired or required concentration levels.

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A profile of the soluble BOD_5 concentration in a reactor, as aeration phases occur, indicates a general decline in the amount of organic material present. The initiation of aeration at the start of the React Fill phase results in a gradual decline in BOD_5 concentration. By comparison, the rate of decline in the React phase (with the absence of any additional influent wastewater entering the reactor) is dramatically increased.

In summary, the React phase features a reactor that is always in a completely mixed condition which alternates between an aerobic and an anoxic environment. The absence of flow and organic loading provides a unique opportunity to "polish off" wastewater contaminants. This results in a reduction of organic material (BOD_5) and total nitrogen present in the reactor to very low effluent concentrations. Since the majority of the biological phosphorus removal normally will have already taken place during the React Fill phase, the React phase does not have a major effect on the effluent total phosphorus concentration.

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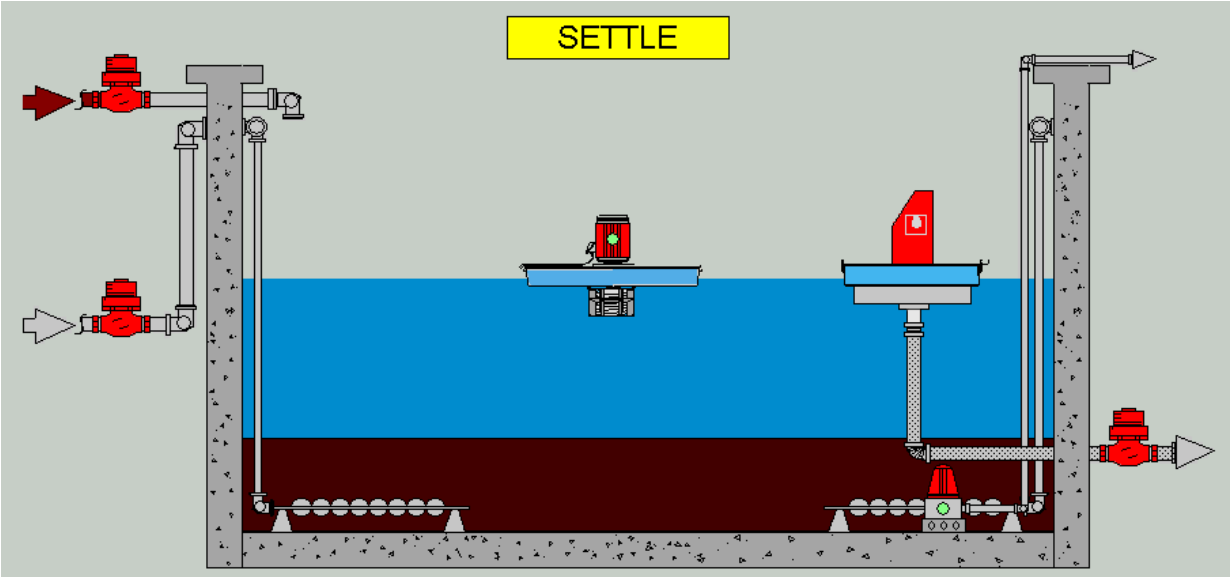
Settle Phase

During the Settle phase, wastewater is not entering the reactor. Also, the AquaDDM mixer and the aeration system are both turned "off". The absence of flow, mixing, and aeration activity produces an ideal quiescent environment in the reactor for solids-liquid separation. Figure 4 shows the related process and mechanical considerations for this phase of operation.

Settle Phase (Figure 4)



Process Considerations	Mechanical Considerations
Quiescent Conditions	Mixer Off
Static Clarifier	Influent Valve Closed/Transfer Pump Off
Settling Biomass	Aeration System Off
	Sludge Pump Off
	Decant Weir Closed

At this point in time, the preceding phases have accomplished all of the process objectives related to the reduction of organic compounds (BOD_5), total nitrogen and total phosphorus. The reactor acts as a "static clarifier" as opposed to a "flow-through clarifier". Since there is no flow entering or exiting the reactor, the settling of solids is simply not affected by system hydraulics.

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Furthermore, sludge is removed from the reactor by a stationary sludge pump after the completion of the Settle phase. Therefore, settling is not affected by any type of stirring action caused by a mechanical sludge collector. Such an ideal quiescent settling environment is unique to SBR systems.

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Decant Phase

Following the treatment of a batch of wastewater and the subsequent solids-liquid separation achieved during the Settle phase, it is then necessary to remove approximately the same volume of liquid that entered the reactor during the Mix Fill and React Fill phases of operation.

The AquaSBR accomplishes the removal of treated effluent with one or more floating decanters, which remain in the reactor at all times. The decanters are installed in a manner that permits them to rise and descend with the reactor water level during the Fill and Draw modes of operation. Each decanter unit features an outlet weir and discharge system that incorporates a positive seal prohibiting the entry of mixed liquor suspended solids during the mixed and aerated phases of operation.

At the completion of the Settle phase, an electrical signal from the system control panel initiates the opening of the decant weir and the effluent discharge valve.

The configuration of a weir suspended below a floating structure provides an effluent withdrawal point that is located just below the surface of the reactor. The positioning of this withdrawal point provides effluent from the uppermost region of the stratified reactor without allowing any surface scum or foam to be drawn into the effluent. The vertical distance from the top of the settled sludge layer to the effluent withdrawal point is also maximized.

As the Decant phase progresses, the decanter units maintain this optimum position of effluent withdrawal by simply floating on the surface and descending with the reactor water level. The Decant phase of operation is terminated at the predetermined minimum reactor water level that is controlled by a level sensor system. An electrical signal, prompted by the attainment of the minimum reactor water level, reverses the position of the decanter components by closing the effluent valve and sealing the decant weir against the bottom of the float structure. A schematic of the AquaSBR during this phase is shown in Figure 5.

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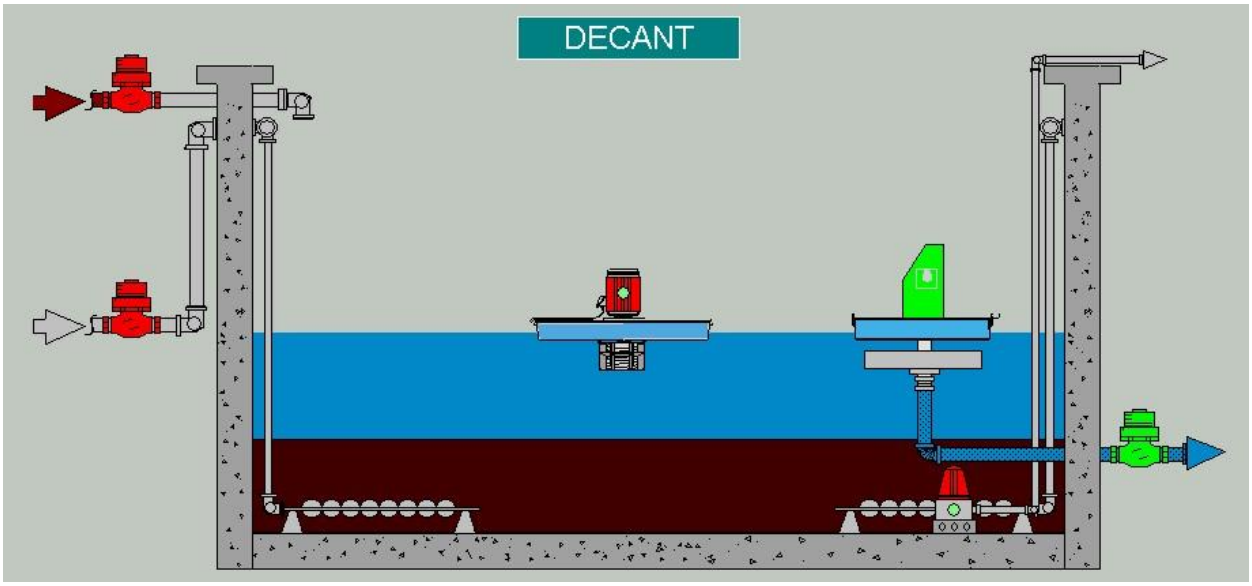
Decant/Idle/Sludge Waste Phase (Figure 5)



Process Considerations	Mechanical Considerations
Quiescent Conditions	Mixer Off
Removing "Clear" Supernatant	Influent Valve Closed/Transfer Pump Off
Continue Settling	Aeration System Off
Removing Excess Biomass	Sludge Pump On Decant Weir Open

Once the reactor has been decanted to the design minimum side water depth (SWD), the Decant phase is automatically terminated. At this point, the decant valve and weir are automatically closed. If the minimum SWD is attained before the end of the programmed duration of this phase, the remaining time is utilized as the Idle phase.

Recognize that the time dedicated to the Decant phase represents an extension of the total time during which solids-liquid separation occurs in each reactor.

After the completion of the Settle phase, the mixer and aeration system are still inoperative and the quiescent conditions are maintained in the reactor as the Decant phase is initiated. The settled sludge mass is typically well below the reactor surface water level as the Decant phase starts, and sedimentation continues throughout the Decant phase.

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Idle Phase

The Idle phase in an AquaSBR is a variable time period. The exact duration of the Idle phase is dependent upon specific hydraulic aspects of the treatment system. The AquaSBR system is designed on the basis of two distinct volume increments in each reactor. These two volume increments are defined as the "react volume" and the "maximum decant volume".

The react volume is the volume present in a reactor at the predetermined minimum reactor side water depth (SWD). The maximum decant volume is the volume represented by the difference between the minimum and maximum side water depths. The maximum decant volume is established in the design as the reactor volume required to receive the maximum design flow sustained throughout a single treatment cycle.

The decanter is appropriately sized (in terms of the decant weir diameter and the outlet piping and valving) to discharge the maximum decant volume over the entire duration of the Decant phase. At system flow rates significantly less than the design maximum value, each reactor will receive less than the maximum decant volume. However, the effluent will still be decanted at approximately the design discharge flow rate.

The volume received in one cycle (at less than the maximum design flow rate) will therefore be discharged over a time period that is less than the programmed duration of the Decant phase. The minimum water level sensor will terminate the decant cycle at the pre-set minimum SWD, regardless of the volume received per treatment cycle during the Fill phases of operation. At this point, the timer within the AquaSBR control system will continue to operate for the entire programmed duration of the Decant phase. The Idle phase is then the resultant time increment between the time of decant termination by the level sensor and the termination of the programmed duration of the Decant phase. As the description implies, the reactor simply remains in an idle mode with all mechanical systems being inoperative.

With respect to process considerations, the reactor is in a stratified condition and wastewater is not entering the reactor. Process and mechanical considerations of the AquaSBR during this phase of operation are shown in Figure 6.

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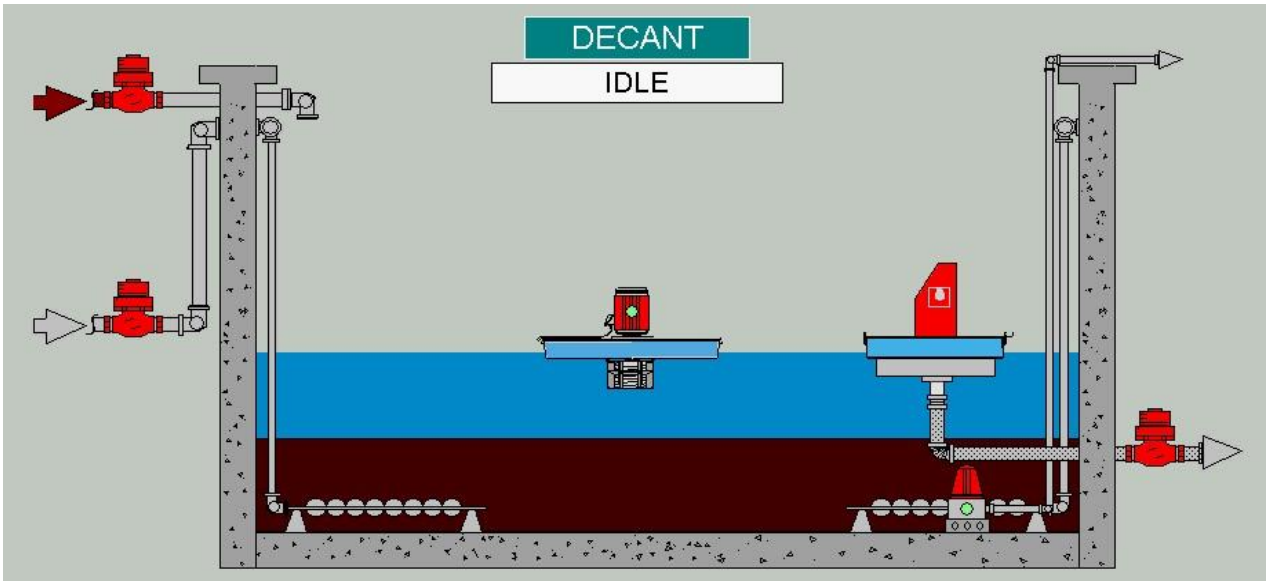
Idle Phase (Figure 6)



Process Consideration	Mechanical Considerations
Quiescent Conditions	Mixer Off
	Influent Valve Closed/Transfer
	Pump Off
	Aeration System Off
	Sludge Pump Off
	Decant Weir Closed

In summary, a description of the Idle phase is dependent upon related factors that affect this phase of operation. It is a necessary phase of operation when a treatment system is required to treat variable hydraulic loading rates on a pre-set time cycle basis of operation.

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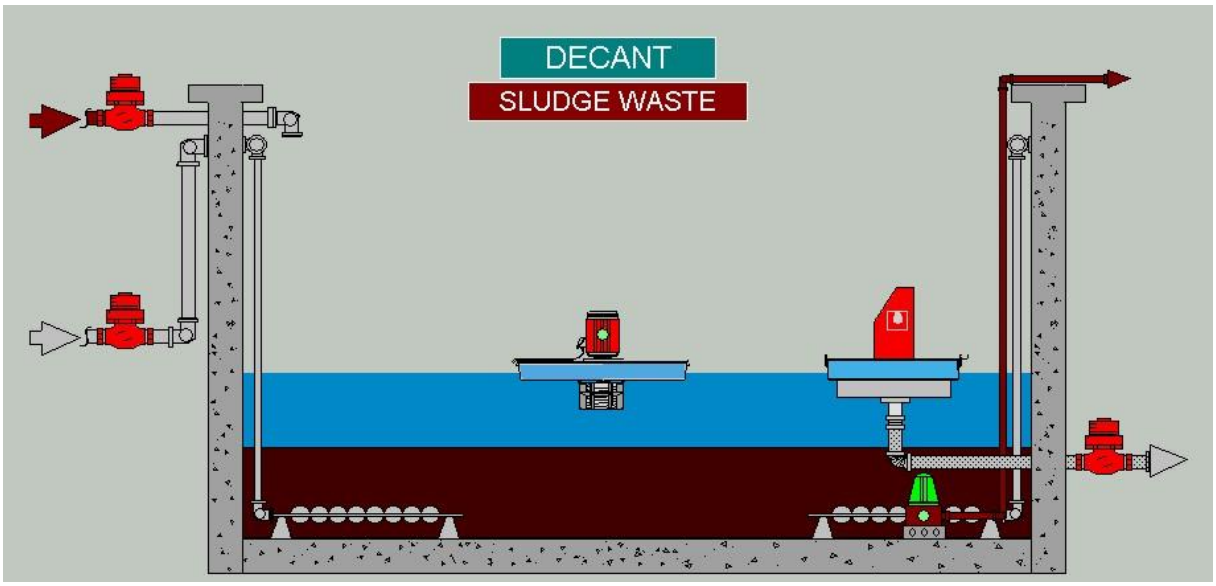
Waste Sludge Phase

AquaSBR systems, like other activated sludge process variations, are dependent upon the development of a mixed culture of bacteria and other microbial life forms to accomplish treatment objectives. As a result of the biological degradation of organic matter and the accumulation of inert material present in most wastewaters, it is necessary to discharge certain quantities of solids from the reactors in order to maintain an appropriate concentration of mixed liquor suspended solids (MLSS) in the reactor, and to control the sludge age. This phase of operation within the treatment cycle is designed as a time increment that occurs simultaneously with the Decant/Idle phase.

The programmable logic controller (PLC) is programmed to initiate the Waste Sludge phase during the final minutes of the Decant/Idle phase. At this time, the reactor is in a stratified condition, and one or more solids handling pumps are removing settled sludge from the bottom of the reactor. Since waste sludge solids concentration levels are typically in the range of 0.75% to 1.25%, the sludge remains in a fluid condition throughout a typical waste sludge pumping cycle.

Waste Sludge Phase (Figure 7)



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A Metawater Company

AquaSBR® Sequencing Batch Reactor

Advantages

AquaSBR System:

Sequencing Batch Reactor systems represent a variation of the activated sludge process. Like any other activated sludge process, the AquaSBR® Sequencing Batch Reactor system works by developing a mixed culture of bacteria, which is effective in removing BOD, COD and nutrients found in wastewater.

The AquaSBR can treat a wide range of domestic and industrial wastewaters, at flows ranging from a few hundred cubic meters to thousands of cubic meters per day.

Because the AquaSBR operates in a true batch treatment mode, optimum effluent quality is obtained during each cycle. Only a fraction of the total reactor volume, typically 1/6th, is introduced into the reactor each cycle. This raw flow combines with the acclimated biomass, which remains in the reactor at all times.

The ratio of raw flow to biomass is a key factor in obtaining desired effluent quality results in a sequencing batch reactor system. Since only a small amount of sludge is wasted each cycle, the quality of the biomass is always maintained.

A true batch reactor system, like the AquaSBR, does not allow influent wastewater to enter the sequencing batch reactor during final react, settle and decant phases, thereby assuring an excellent quality of final effluent.

AquaSBR System Advantages:

The AquaSBR is operated in a true batch reactor treatment mode, which does not allow wastewater to enter the reactor during the React, Settle and Decant phases. The system:

- Tolerates variable hydraulic loads – mixed liquor solids cannot be washed out by hydraulic surges since effluent withdrawal is typically accomplished in a separate phase following the termination of flow to each reactor.
- Tolerates variable organic loads – each influent liquid batch is diluted with the reactor contents from the previous cycle.
- Controls filamentous growth – filamentous organisms are controlled by creating an anoxic condition during the initial fill phase.
- Provides ideal quiescent settling – since there is no flow during settling, and no mechanical sludge collection device stirring the basin, ideal quiescent settling conditions exist.

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AquaSBR Process Features:

Peak Design Flow

The AquaSBR maintains predetermined cycle times, even at peak daily flow conditions. Cycle integrity is maintained at all flows up to and equal to maximum design flows. There is no cycle advancement up to the maximum design flow which eliminates the possibility of filling and decanting at the same time. Cycle advancement reduces the treatment time and the ability to meet the effluent objectives and filling and decanting is similar to clarifier washout where solids in the basin are carried out through the discharge along with raw sewage as it enters the basin.

Separation of Aeration & Mixing

Aeration – Aeration will be provided by a Diffused aeration system or Aqua-Jet aerators.

Mixing – The separation of aeration from mixing is essential to the success of a sequencing batch reactor system especially for nutrient removal applications.

The floating direct drive AquaDDM mixer provides a powerful downflow discharge for maximum solids suspension and aeration enhancement throughout the basin. Mixing efficiency can be double that of jet mixers or submerged horizontal mixers. The use of the AquaDDM mixer enables the AquaSBR to be operated for nutrient removal and to control filamentous organisms by providing a mixed, non-aerated anoxic environment during selected phases of operation.

Aeration cycling during the reaction period without the loss of a completely mixed basin alternates the basin environment between aerobic and anoxic conditions essential for nutrient removal.

The entire basin is used as an anoxic reactor maximizing the efficiency of the system. Separate zones sectioned off using baffles or walls or separate basins are not required. In addition, the need for recycle pumping (RAS) and the difficulties associated with controlling RAS pumps and rates are eliminated.

Retrievable & Accessible Components

The AquaSBR is designed to minimize operation and maintenance. The majority of the components in the AquaSBR design are accessible from the side of the tank. If total accessibility without tank dewatering is required, this can be obtained by using a retrievable diffuser option, which is an available option.

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Aqua-Aerobic Decanter System

This positively sealed effluent decanter system incorporates several mechanical design features and a mode of operation that results in optimum performance. This design assures that sub-surface withdrawal of supernatant will always be extracted from the reactor at an adequate depth, and within the diameter of the floating structure, to avoid drawing surface material into the effluent flow. At no time does the decanter have to pass through the reactor water surface where scum and floating material can accumulate.

The need to eliminate the layer of scum sometimes found on the surface of activated sludge systems is not crucial to a clear discharge from the Aqua-Aerobic decanter. The float of the decanter prevents any floating material from entering the central chamber of the unit, so there is no impact of any floating material. In addition, the design decanter entrance velocities prohibit the entrainment of surface liquid. Therefore, the need for additional equipment to remove scum is not required.

Aqua-Aerobic Manufactured

All critical components of the AquaSBR are designed and manufactured by Aqua-Aerobic Systems, Inc., a leader in the wastewater treatment industry for 50 years.

Consistent Effluent Quality

The use of microprocessors allow the operator to adjust time and/or aeration and mixing based on organic loads and flow conditions to achieve required results.

PLC-Based Control System

The AquaSBR control system is a timer-based system with level overrides. This system provides control, sequence monitoring, and annunciation capabilities, and is designed to focus on an operating strategy to optimize the biological treatment process, while minimizing required operator attention.

Operation & Process Description

The AquaSBR acts as an equalization basin, aeration basin, and clarifier within a single reactor. The termination of flow during the treatment process provides perfectly quiescent settling conditions in the reactor, and permits even very fine particles to settle. Each reactor maintains its own treatment regime and all phases of treatment occur in each reactor for the full cycle time at flow up to the maximum design flow.

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Fill Phases

1. **Mixed Fill –** Influent enters the AquaSBR reactor. Complete mix of the reactor contents is achieved without the use of aeration. This phase assists in control of filamentous organisms and biomass conditioning. The entire basin is used and no RAS required.
2. **React Fill –** Influent flow continues under mixed and aerated conditions. Aeration may be intermittent to promote aerobic or anoxic conditions. Nitrification and denitrification can be achieved. The separation of aeration and mixing allows energy control and anoxic conditions without the loss of a completely mixed system.

Non-Fill Phases

1. **React –** Influent flow is terminated, while mixing and aeration continue. Intermittent operation of the aeration system may continue to complete the nitrification/denitrification process, or to conserve energy.
2. **Settle –** Mixing and aeration cease. Solids/Liquid separation takes place under perfectly quiescent conditions.
3. **Decant/Sludge Waste –** The mixer and aeration system remain off and, at this time, the decantable volume is removed by means of subsurface withdrawal. The reactor is immediately ready to receive the next batch of raw influent. A small amount of sludge is wasted each cycle.

Process and Mechanical Advantages

The AquaSBR System supplied by Aqua-Aerobic Systems exhibits significant process and mechanical advantages offering mechanical reliability and overall flexibility for the AquaSBR System. The major areas where the AquaSBR System is superior are described below.

Decanter and Decant System Design

The AquaSBR employs a floating decanter which is provided with a circular stainless steel weir to minimize overflow velocities. The major advantages of the decanter and decant system are as follows:

A. The reduced flow velocities result in reduced carryover of suspended solids to downstream units when compared to fixed decanter system or an adjustable decant pipe. In addition, the positive seal between the weir and float assembly assures no leakage during non-decant periods.

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B. Carryover of floatable materials during the decant cycle is virtually eliminated due to the submerged weir and the float assembly which maximizes the separation between the water surface and the discharge entrance point. Utilization of a fixed decanter or decanter which is lowered into the basin at the start of the decant cycle can result in the carryover of floatables to downstream units. Other SBR systems may provide for a skimming tank upstream of the SBR basin to entrap floatables, or decant the initial flow back to the plant headworks, thereby increasing the solids and organic loading and complicating the control system.

C. The AquaSBR System is provided with an electrically operated control valve on the decant line to throttle the initial decant flow to acceptable levels, thereby eliminating the possibility of high flow velocities disturbing the settled sludge blanket. This valve also serves as a backup to the positive seal on the decanter in the unlikely event of a decanter malfunction.

D. The decanter is provided with a single motor actuator with only one moving part. This is the most mechanically reliable decanter currently manufactured. Freezing problems are eliminated, as the entire weir assembly is submerged, whereas the use of a removable decanter during extended periods of cold weather can result in icing and freezing problems. Complicated control equipment such as inverters are not required.

Aqua MixAir® Aeration System

The AquaSBR System is provided with a downdraft mixer to allow separation of the power required for mixing and oxygen transfer. The major advantages of the Aqua MixAir® Aeration System are as follows:

A. The AquaSBR basin is operated in a completely mixed mode, thereby providing increased process reliability and flexibility when compared to plug flow systems. Complete mix systems provide stable operation over a wide range of organic and hydraulic loadings due to the ability of the influent load to be dispersed uniformly throughout the tank.

B. Utilization of the mixer provides for higher basin MLSS concentrations to be maintained, thereby resulting in reduced waste sludge quantities due to the lower food-to-microorganism ratio maintained. The higher solids levels also provide for a greater quantity of biomass which is available to absorb higher organic loadings. Operation of the AquaSBR System at these higher MLSS concentrations offers increased design flexibility and conservatism.

C. A significant savings in power costs may be expected due to the ability of the Aqua MixAir Aeration System to maintain solids in suspension during periods of low organic loading, as the air blowers may be throttled to levels normally below those required to maintain solids in suspension.

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D. Air flow rates may be varied to match oxygen demand, thereby eliminating the potential for over-aeration of the mixed liquor, which can result in problems with sludge settleability and the carryover of suspended solids to downstream units. In addition to this important process advantage, the MixAir system will reduce annual power costs as discussed above. The MixAir concept is particularly advantageous for projects where low flows are anticipated in the early years of operation, where significant over-aeration could occur with conventional aeration systems.

E. The most important factor involved with the consistently successful operation of the SBR process is the ability to mix the basin efficiently, thereby assuring uniform organic and dissolved oxygen concentrations are maintained throughout the basin. The AquaDDM mixer supplied with the AquaSBR System provides for entrained flow rates up to 35 times greater than direct pumping rates, thereby ensuring a completely mixed basin at all times. Systems relying on diffused aeration or jet aeration systems for mixing are far less efficient in terms of mixing capabilities, flexibility and power requirements.

F. During periods when the AquaDDM mixer is in operation, floatable materials and scum are directed into the flow path and re-entrained into the mixed liquor.

G. Depending upon the type and arrangement of the aeration piping and diffusers, oxygen transfer rates may be enhanced up to 25 percent over comparable diffused air systems when the AquaDDM mixer is employed, resulting in a further reduction of annual power costs.

H. Anoxic conditions which develop during the Mixed Fill cycle using the AquaDDM mixer without aeration have been demonstrated to markedly reduce the potential for the proliferation of filamentous organisms which adversely affect sludge settling characteristics. Other SBR Systems either provide for Mixed Fill cycles with reduced airflow rates which still adds oxygen to the system, separate anoxic “zones” with inadequate mixing and recycle or inefficient jet mixing systems. These approaches will not provide the same reliability and flexibility in controlling filamentous bacteria.

I. During operation in the nitrification/denitrification mode where the aeration blowers may be cycled to maintain optimum process conditions, the AquaDDM mixer has been demonstrated to reduce by up to 75 percent the time required to bring the basin dissolved oxygen concentration back to operating levels when compared to an aeration system not using the AquaDDM mixer. Similar performance has also been experienced at the end of the Mixed Fill Cycle or after a long idle period. This rapid oxygen level recovery period assures optimum treatment by allowing essentially the entire React Fill and React cycles to be provided with adequate dissolved oxygen levels.

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Low-Load System Design

Where effluent limits dictate, the AquaSBR System may be designed for a low food-to-microorganism ratio and high mixed liquor concentration to achieve biological phosphorus and nitrogen removal. Specific advantages of the low-load design include:

A. Increased process reliability and flexibility due to high MLSS concentrations, as previously discussed.

B. The AquaDDM mixer provides the capability to manipulate the reactor environment during appropriate phases of a treatment cycle to achieve biological removal of phosphorus and nitrogen.

C. The inherent design of the AquaSBR low-load system provides for some degree of denitrification during the Mixed Fill cycle when anoxic conditions are developed. During the React Fill and React periods, the use of the MixAir system allow environment manipulation and flexibility for the formation nitrates through nitrification and the removal of nitrates through denitrification.

D. No license fees or royalties of any kind are charged by Aqua-Aerobic Systems for the use of Aqua-Aerobic Systems' low-load biological phosphorus and nitrogen removal system.

E. The AquaSBR System design provides for adequate basin volume to store the maximum design flow rate during the time that the other basin is completing the React, Settle, and Decant phases of operation. This design basis assures that treatment cycle times are not shortened unless the maximum design flow to the system is exceeded. This assures the absolute highest quality effluent is produced over a wide range of flow and loading conditions. In contrast, other SBR system suppliers may provide a reduced basin volume, with cycle times shortened when peak flow rates exceed average levels.

F. The AquaSBR System is controlled by an operator-friendly microprocessor control system, in which the process variables may be easily changed to match flow or loading conditions. Time control of the operating cycle duration is provided to maximize operating efficiency, with float switches provided in the AquaSBR basin to override the time controls in the event peak flow rates are exceed for extended periods of time.

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Aqua Service

Programs, Parts and Cost Saving Solutions

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A Metawater Company

Aqua Service

Programs, Parts and Cost Saving Solutions

From process start-up to aftermarket products and services, Aqua-Aerobic® Customer Services provide you with the experience and expertise required to ensure your plant is operating at optimum efficiency.

Whether you need technical support at 2:00 a.m., specialized operator training or critical parts shipped overnight, Aqua-Aerobic Systems has the team of dedicated customer service personnel and a national network of experienced field technicians that are available to service your needs - 24/7.

Valued customers have come to know that when you purchase from Aqua-Aerobic Systems, you are gaining a partner for the life of your plant.

Training and Education

- Mechanical, process or maintenance related
- Factory or on-site training available
- Earn PDH credits
- Learn from the experts

Rental & Lease Programs

- Affordable alternative to purchasing new equipment
- Short or long term options
- New & reconditioned units
- Programs tailored to meet your needs

Rehab & Upgrades

- Economical option versus replacing with new system
- Professional analysis by our qualified technicians
- Recommended solutions that fit your budget

Replacement Parts

- SpareCare® original OEM parts
- Fast shipment from stocked inventory
- On-site installation assistance

Maintenance Programs

- Designed to extend equipment life
- Reduces or eliminates downtime
- Lowers overall operating costs

Rental Filter Units

- Package AquaDisk® cloth media filter units
- Temporary municipal or industrial filtration
- Low monthly rental rate
- Start-up and training available

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A Metawater Company

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Company Profile and Capabilities

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

GENERAL INFORMATION

ABOUT OUR COMPANY

Aqua-Aerobic Systems is an applied engineering company specializing in adaptive water management solutions including aeration/mixing, biological processes, cloth media filtration, membranes, PFAS solutions, oxidation/disinfection and process control. Since 1969, the company has served the water and wastewater industry by providing both municipal and industrial customers around the world with advanced technologies and treatment solutions that easily adapt to changing demands. From enhanced nutrient removal to primary filtration, ultra low phosphorus removal or water reuse, Aqua-Aerobic has proven solutions that offer the lowest cost of ownership with life-time customer service.

MISSION

Protecting the World's Water.

STRATEGIC INTENT

Providing innovative and best-in-class water treatment solutions in aeration and mixing, biological processes, filtration, membranes, PFAS solutions, ozone systems and aftermarket products and services while upholding the values that have been key to our success.

James Horton
President & CEO

Kevin L. Heasley, E.I.T.
Vice President, Operations

Scott R. Willis
Vice President & Chief Financial Officer

Joe Tardio
Vice President, Sales & Marketing

Mark Hughes, P.E.
Vice President, Technology

FACILITY / TEST FACILITY

125,000 square feet office and manufacturing (25% office space and 75% manufacturing space)

250,000 gallon (950 m^3) test tank
55,000 gallon (209 m^3) test tank

RESEARCH & TECHNOLOGY CENTER

Located at Four Rivers Sanitation Authority, this on-site research facility allows Aqua-Aerobic to conduct extensive research and testing on new products and process concepts.

ADVANCED PRIMARY FILTRATION

Designed to handle an average flow of 15 MGD and a peak flow of 30 MGD, our AquaPrime® Cloth Media Advanced Primary Filtration System is currently in operation at Four Rivers Sanitation Authority since 2024.

REPRESENTATION

150 Sales Representatives in the US, Canada, Mexico and throughout the world. Most are graduate engineers and have design capabilities.

MARKETS

85% United States, Canada, Virgin Islands
15% International

INSTALLATIONS

More than 10,000 installations worldwide

GENERAL INFORMATION

ENGINEERING & TECHNICAL EXPERTISE

Aqua-Aerobic Systems, Inc. has a full staff of process, mechanical and electrical engineers, product managers, R&D staff, customer service and field service specialists.

Total Employees	257 (Office and Manufacturing)
Administration	9 Technical Managers & Officers
Process Group	2 Vice Presidents
Filtration/PFAS Solutions	3 Product Managers 1 Product Specialist
Biological Processes	3 Product Managers 3 Senior Process Engineers
Oxidation & Disinfection	1 Product Manager 1 Project Application Engineer
Domestic Sales	4 Regional Managers
International Sales	1 International Business Director 1 Latin America Regional Manager
Industrial Sales	1 Industrial Business Director
Application Engineering	1 Manager 1 Supervisor 7 Project Application Engineers 1 Senior Application Engineer 10 Application Engineers
Equipment & Services Group	
Aeration & Mixing	1 Product Manager 1 Application Engineer
Customer Service/ Field Service	1 Director 1 Manager 24 Field Service Technicians 5 Independent Service Providers 3 Partner Companies
Aftermarket Service	1 Director 7 Support Personnel
Operations	1 Vice President 1 Manager
Manufacturing	1 Manager 17 Shop Employees
Project Management	1 Director 1 Senior Project Manager 11 Project Managers
Research & Development	1 Director 1 Manager 5 Degreed Engineers/Support Personnel
Engineering	1 Director 2 Managers 3 Supervisors 47 Degreed Engineers/Support Personnel

FINANCIAL INFORMATION

Aqua-Aerobic Systems, Inc. is a well financed company with sales exceeding $100 Million. Aqua-Aerobic Systems, Inc. also has extensive bonding capabilities.

Primary Banking	BMO Harris Bank, Rockford, Illinois
Auditors	RSM McGladrey, Rockford, Illinois

COMPANY HISTORY

In 1919, Rockford, Illinois was a rapidly growing riverfront community. Race Street, in the center of town, was home to Solem Machine Company, a respected manufacturer of woodworking equipment. As the city grew and thrived, so did the company. In 1958, larger facilities were needed and the company moved to 6306 N. Alpine Road.

In 1964, a group of investors, including Aqua-Aerobic Systems, Inc. President, John D. Brubaker (retired), purchased this well established manufacturing firm. With an eye toward the future, these investors considered the changing market needs and began expanding the product line. Soon after, the company was positioned to meet the demands of a new and growing environmental industry. In 1969, Solem Machine Company purchased Aqua-Aerobic Systems and began manufacturing its own line of surface aerators, the Aqua-Jet®. The Aqua-Jet® aerator quickly revolutionized the aerator industry, which led to the company phasing out its other product lines and shifting its focus exclusively to wastewater treatment. In 1976, that commitment resulted in Solem Machine Company's decision to legally adopt the name Aqua-Aerobic Systems, Inc.

In 1989, an additional 35,000 square feet of office and manufacturing space was constructed to accommodate the company's rapid growth. Due to increased requests for Aqua's technical seminars and an increase in local business due to growth of the Chicago suburbs, Aqua-Aerobic once again expanded its facilities. In April 2005, another 25,000 square feet was added to the existing building for new, state-of-the-art seminar facilities, more meeting areas, a formal lunchroom, and new offices. The exterior of the new building is environmentally friendly, utilizing glass to promote natural heat and lighting. The existing building was renovated and included conversion of 4,800 square feet of office space into manufacturing space. Existing office areas were also remodeled to coincide with the interior of the new building. Construction was complete in Spring 2006 and included space for company growth. The new high-tech facilities allow Aqua-Aerobic to accommodate larger seminar audiences and to provide remote webcasts.

In 2016, Aqua-Aerobic Systems merged with Metawater Co., Ltd., (Tokyo, Japan) an international company and leading supplier of advanced water and wastewater solutions. Currently, Aqua-Aerobic employs approximately 200 persons in manufacturing, engineering, sales/marketing and administration. The company's product line includes: biological processes, aeration and mixing, cloth media filtration, membrane systems, PFAS solutions, oxidation and disinfection and process control and management.

The company's dedication to research and development ensure the availability of products to meet unique applications and changing requirements. Aqua-Aerobic has gained recognition for quality products. Our commitment to environmental preservation and product integrity ensures continued success well into the 21st century.

TRADEMARKS & PRODUCT LINE

PATENTS

Aqua-Aerobic Systems, Inc. holds 50 patents for processes and equipment used in wastewater treatment systems.

PRODUCTS AND SYSTEMS

Aeration & Mixing

Aqua-Jet® Surface Mechanical Aerator
Aqua-Jet II® Contained Flow Aerator
AquaDDM® Direct-drive Mixer
Endura® Series Limited Maintenance Product
OxyMix® Pure Oxygen Mixer
OxyStar® Aspirating Aerator
Fold-a-Float® Self-deploying Segmented Float
SAF-T Float® Safe Accessible Float Technology
TurboStar® Directional Mixer
DualStar™ Directional Mixer

Biological Processes

Aqua MixAir® Aeration System
AquaCAM-D® Combination Aerator/Mixer/Decanter
AquaSBR® Sequencing Batch Reactor
Aqua TruDense™ True Densified Sequencing Batch Reactor
AquaNereda® Aerobic Granular Sludge Technology
Aqua MSBR® Modified Sequencing Batch Reactor
AquaPASS® Phased Activated Sludge System
Aqua EnduraTube® Fine-bubble Tube Diffuser
Aqua EnduraDisc® Fine-bubble Disc Diffuser
Aqua CB-24® Coarse-bubble Diffuser

Filtration

AquaDisk® Cloth Media Filter
AquaDiamond® Cloth Media Filter
AquaDrum® Pressure Series Cloth Media Filter
Aqua MiniDisk® Cloth Media Filter
Aqua MegaDisk® Cloth Media Filter
AquaPrime® Cloth Media Filter
AquaStorm® Cloth Media Filter
OptiComb® Backwash System
OptiFiber® Cloth Filtration Media
OptiFiber PES-13® Cloth Filtration Media
OptiFiber PA2-12® Cloth Filtration Media
OptiFiber PES-14® Cloth Filtration Media

TYPICAL INDUSTRIES SERVED

- Pulp & Paper
- Food/Dairy
- Beverage
- Chemical
- Petroleum/Petrochemical
- Textile
- Energy/Utility
- Pharmaceutical

Filtration (continued)

OptiFiber PF-14® Cloth Filtration Media
OptiFiber UF-10™ Cloth Filtration Media
AquaABF® Automatic Backwash Filter

PFAS Removal Solutions

AquaPRS™ PFAS Removal System
Aqua PR-206™ PFAS Removal Sorbent

Membranes

Aqua MultiBore® P-Series Polymeric Membrane System
Aqua MultiBore® C-Series Ceramic Membrane System
AquaMB Process® Multiple-Barrier Membrane System
Aqua-Aerobic® MBR Membrane Bioreactor System

Disinfection

Aqua ElectrOzone® F-Series Ozone Generator

Controls and Monitoring

IntelliPro® Monitoring and Control System

COMMUNITY INVOLVEMENT

Aqua-Aerobic Systems takes pride in its donations to over 100 organizations.

MEMBERSHIPS

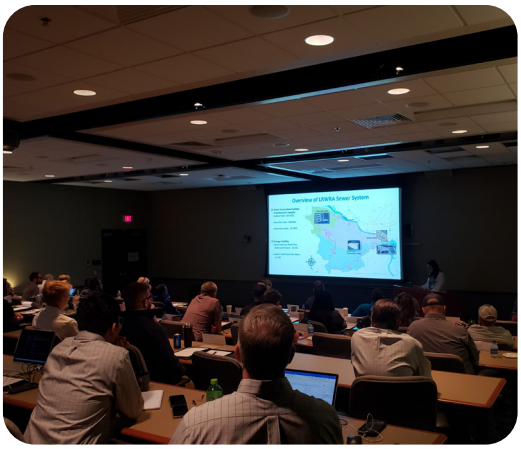
American Association of Meat Processors (AAMP)
American Membrane Technology Association (AMTA)
American Society for Quality
American Water Works Association (AWWA)
Business for the Bay
Illinois Chamber of Commerce
Illinois Manufacturers' Association
International Association on Water Quality (IAWQ)
International Desalination Association (IDA)
International Ozone Association (IOA)
National Association of Manufacturers
National Association of Clean Water Agencies
Technical Association of Pulp & Paper Industry (TAPPI)
Water Environment Federation (WEF)
Water & Wastewater Equipment Manufacturers Association (WWEMA)
WateReuse Association
Water Design-Build Council

RECOGNITIONS

Northern Illinois Business Hall of Fame
Exporter Continuing Excellence Award
Manufacturer of the Year Award from Rockford Chamber of Commerce
Special Congressional Recognition
WWEMA Diamond Award
Outstanding Corporation Award from the City of Rockford
Innovative Technology Award from WEF - 2008, 2011
Export Achievement Certificate from the U.S. Dept. of Commerce
Confluence Partnership Honors - Aqua-Rock Business Development Project (2018)

TRAINING AND EDUCATION

Structured training seminars are conducted by Aqua-Aerobic personnel monthly, Spring through Fall. More than 30 Consulting Engineers, Plant Operators, and Municipal Officials typically attend these training seminars each month to learn about Aqua-Aerobic equipment and systems. Aqua-Aerobic Systems' engineering staff attends company sponsored seminars and workshops relating to the wastewater industry.



EMPLOYEE PROFILES

OFFICERS

James Horton
President & CEO
M.S. degree in Civil Engineering/Queensland University of Technology, Australia. B.S. degree in Chemical / Environmental Engineering/University of Queensland, Australia. Domestic and International experience in wastewater engineering since 1996 including positions with consulting engineer and specialty wastewater contractor.

Kevin L. Heasley, E.I.T.
Vice President, Operations
B.S. degree in Structural Design & Construction Technology/Penn State University, Harrisburg, EIT/State of Pennsylvania. Experience in large underground piping systems and wastewater since 1984.

Scott Willis
Vice President & Chief Financial Officer
M.S. degree in Business Administration and B.S. degree in Accounting/Northern Illinois University, DeKalb, IL AAS degree in Business/Rock Valley College, Rockford, IL.

Joe Tardio
Vice President, Sales & Marketing
M.S. degree in Environmental & Waste Management/ Stony Brook University, Stony Brook, NY. B.A. degree in Biological Sciences & Chemistry/University of Delaware, Newark, DE. Experience in water/wastewater industry since 2006.

Mark Hughes, P.E.
Vice President, Technology
M.S. degree in Environmental and Water Resources Engineering/The University of Texas - Austin. B.S. degree in Civil Engineering/University of Iowa, Iowa City, IA. Experience in water/wastewater industry since 2008.

ADMINISTRATIVE MANAGERS

Pamela Appino, P.H.R.
Director of Human Resources
B.S. degree in Administration of Criminal Justice/Bradley University, Peoria, IL. P.H.R. Certification from HR Certification Institute. Human Resources experience since 1991.

PROCESS GROUP

PRODUCT MANAGEMENT

Manuel de los Santos
Product Manager - Biological Processes
M.S. degree in Sanitary and Environmental Engineering/Universidad de Cantabria, Spain. B.S. degree in Civil Engineering/Universidad Nacional Pedro Henriquez Ureña, Santo Domingo, DR. Experience in water/wastewater industry since 2000.

Thea Davis
Senior Process Engineer - Biological Processes
B.S. degree in Chemical Engineering and M.S. degree in Chemical Engineering/Illinois Institute of Technology, Chicago, IL. Water Innovation Research Intern at Current Innovation. Experience in water/wastewater industry since 2019.

Brett Quimby
Product Manager - AquaNereda®
B.A. degree in Japanese Language and Literature/ University of Wisconsin, Madison, WI. Experience in water/wastewater industry since 2016.

Paula Dorn
Senior Process Engineer - AquaNereda®
M.S. degree in Environmental Engineering, B.S. degree in Civil Engineering/University of Illinois, Urbana-Champaign, IL.Experience in water/wastewater industry since 2018.

Vedansh Gupta
Product Manager - AquaPrime®/AquaStorm®
B.S. degree in Chemical Engineering/Malaviya National Institute of Technology, Jaipur, India. M.S. in Civil & Environmental Engineering/ University of Utah, Salt Lake City, UT. Experience in water/wastewater industry since 2018.

Josh Gable
Product Manager - Filtration
M.S. degree in Civil & Environmental Engineering University of Wisconsin, Madison, B.S degree in Biological Systems Engineering University of Wisconsin, Madison. Experience in water/wastewater industry since 2008.

EMPLOYEE PROFILES

PRODUCT MANAGEMENT (continued)

Kristy Chycota
Product Specialist - Filtration
B.S. degree in Paper Engineering - Environmental Processes/Western Michigan University, Kalamazoo, MI. 2 years experience in Product Management at Englewood and 4 years at Beloit Corporation as a process engineer. Experience in water/wastewater industry since 2019.

John Dyson
Product Manager - PFAS Solutions
B.S. degree in Chemistry/Longwood College, Farmville, VA. Experience in water/wastewater industry since 1991.

Dave Lamphere
Product Manager - Membranes
Bachelor's Degree in Mechanical Engineering and an executive MBA from Rochester Institute of Technology (R.I.T). Experience in water/wastewater industry since 2005.

Dave Holland
Senior Process Engineer
A.A.S. degree in Technical writing/Rock Valley College, Rockford, IL. Experience in water/wastewater industry since 1979.

Yuichiro Shinoda
Product Manager - Oxidation & Disinfection
M.S. degree in Materials Science and Engineering, Yokohama National University, B.S. degree in Materials Science and Engineering, Yokohama National University. Experience in the water/wastewater industry in Japan and North America since 2001.

MARKETING

Cheryl Kunz
Director of Marketing
B.A. degree in Business Management/Ashford University, Clinton, IA. Experience in water/wastewater industry and marketing since 1989.

APPLICATION ENGINEERING

Tamera Knapp
Application Engineering Manager
B.S. degree in Environmental Engineering/Michigan Technological University. B.S. degree in Environmental Liberal Arts/Northland College, Ashland, WI. Experience in water/wastewater industry since 2004.

Angelica Davila, E.I.T.
Application Engineering Supervisor
B.S. degree in Environmental Engineering/University of Central Florida. Experience in water/wastewater industry since 2013.

Tatiana Mazzei
Senior Project Application Engineer
M.S. degree in Engineering and minor in Production Engineering/University of Wisconsin-Milwaukee, WI. B.S. degree in Chemical Engineering/Universidad Metropolitana, Caracas, Venezuela Experience in water/wastewater industry since 2007.

Rungrod Jittawattanarat, Ph.D.
Project Application Engineer
Ph.D. degree in Civil Engineering/Polytechic Institute of New York University. M.S. degree in Water and Wastewater Engineering/ Asia Institute of Technology, Thailand. B.S. degree in Environmental Engineering/ Chiang-Mai University,Thailand. Experience in water/wastewater industry since 1990.

Harrison DeBruler
Project Application Engineer
B.S. degree in Mechanical Engineering/University of Alabama, Tuscaloosa, AL. Experience in water/wastewater industry since 2021.

Nicholas Fortsas, E.I.T.
Project Application Engineer
B.S. degree in Chemical Engineering/University of Illinois at Urbana-Champaign, Champaign, IL. Experience in water/wastewater industry since 2019.

Mitchell McMahon
Project Application Engineer - Ozone
B.A. degree in Mechanical Engineering/Northern Illinois University. Experience in water/wastewater industry since 2022.

Bryce Hatfield
Project Application Engineer
B.S. in Chemical Engineering at Rose-Hulman Institute of Technology. Experience in water/wastewater industry since 2022.

Natalie Watson
Project Application Engineer
B.S. degree in Chemical Engineering/University of Minnesota-Duluth. Experience in water/wastewater industry since 2023.

EMPLOYEE PROFILES

APPLICATION ENGINEERING (continued)

Nick Schiavo
Project Application Engineer
B.S. degree in Chemical Engineering/Michigan Technological University. Experience in water/wastewater industry since 2023.

Michael McKenna
Senior Application Engineer
B.S. Degree in Chemical Engineering from Queens University, Belfast, Northern Ireland, and Experience in the water/wastewater industry since 2014.

Xu Ye, E.I.T.
Application Engineer
M.S. degree in Environmental Engineering/University of Wisconsin, Madison, WI. B.S. degree in Chemistry/Texas A&M University, College Station, TX. Experience in water/wastewater industry since 2016.

Takuya Sakomoto
Application Engineer
M.S. degree in Civil Engineering/Tottori University, Japan. Experience in water/wastewater industry since 2020.

Brian Huyge
Application Engineer
B.S. degree in Chemical Engineering/Rose-Hulman Institute of Technology. Experience in water/wastewater industry since 2023.

Kenta Cojerian
Application Engineer
B.S. degree in Chemical Engineering/University of Wisconsin-Madison. Experience in water/wastewater industry since 2023.

Faten Hussein, Ph.D.
Application Engineer
Ph.D degree in Civil/Environmental Engineering/Marquette University, Milwaukee, WI, M.S degree in Materials Engineering/University of Wisconsin-Milwaukee, B.S. degree in Chemical Engineering/University of Jordan. Experience in water/wastewater industry since 2017.

Kayla Stevens
Application Engineer
B.S. degree in Chemical Engineering/Ohio State University - Columbus. Experience in water/wastewater industry since 2024.

Meera Manoharan, E.I.T.
Application Engineer
B.S. degree in Biological Systems Engineering/University of Wisconsin-Madison. Experience in water/wastewater industry since 2024.

Noor Guron
Application Engineer
B.S. degree in Chemical Engineering/University of Michigan. Experience in water/wastewater industry since 2024.

Richard Santos
Application Engineer
B.S. degree in Chemical and Biomolecular Engineering/Milwaukee School of Engineering, Milwaukee, WI. Experience in water/wastewater industry since 2024.

Madison Karamagianis
Application Engineer
B.S Degree in Chemical Engineering/Iowa State University. Experience in water/wastewater industry since 2024.

REGIONAL MANAGERS

Scott Kelly
Regional Sales Manager, West
B.S. degree in Chemical Engineering and Petroleum Refining/Colorado School of Mines, Golden, CO. Experience in water/wastewater industry since 1991.

Jamey Steffen, P.E., BCEE
Regional Sales Manager, Southeast
M.S. degree in Civil/Environmental Engineering University of Iowa. Experience in water/wastewater industry since 2000.

Michael Brown
Regional Sales Manager, Northeast
B.A. degree in Professional Writing Kutztown University, Kutztown, PA. Experience in water/wastewater industry since 2005.

EMPLOYEE PROFILES

REGIONAL MANAGERS (continued)

Steve Stanish
Regional Sales Manager, Midwest
B.A. degree in Business Administration/Washington & Jefferson College, Washington, PA. Experience in water/wastewater industry since 1996.

Dave Fisher, P.E., MBA
Director of International Business/Canadian Business
B.S. degree in Civil Engineering and M.B. in Business Administration/Brigham Young University. Experience in water/wastewater industry since 1991.

Tatiana Mazzei
Regional Manager - Latin America
M.S. degree in Engineering and minor in Production Engineering/University of Wisconsin-Milwaukee, WI. B.S. degree in Chemical Engineering/Universidad Metropolitana, Caracas, Venezuela. Experience in water/wastewater industry since 2007.

William Lenz
Director of Industrial Sales
William is a University of South Carolina graduate and has extensive experience in the industrial sector with more than 18 years of experience within the water, air, and sound compliance space. His relationships span across several industries including power, paper, petrochemical, food processing and manufacturing.

OPERATIONS GROUP

Kevin L. Heasley, E.I.T.
Vice President, Operations
B.S. degree in Structural Design & Construction Technology/Penn State University, Harrisburg, EIT/State of Pennsylvania. Experience in large underground piping systems and water/wastewater industry since 1984.

James Hamilton
Operations Manager
Extensive experience in Plant Operations and Management including Material Planning, Inventory, Manufacturing Engineering, Maintenance, Quality, Shipping/Receiving, Administration, and Safety. B.S. degree in Business Administration, Cardinal Stritch University, Milwaukee, WI.

PROJECT MANAGEMENT

Blake Hoffmann
Director, Project Management
B.S. degree in Business Management and Marketing/Edgewood College, Madison, WI. B.S degree in Mechanical Engineering/University of Wisconsin-Platteville, WI. Experience in water/wastewater industry since 2018.

Shawn Butterfield
Project Manager
A.A.S. degree in Science Engineering (Electronic/Electrical Drafting)/Wisconsin School of Electronics (now Herzing University). Experience in water/wastewater industry since 2018.

Tom Fenton
Senior Project Manager
A.A.S. degree in Civil Engineering/Williamsport College, Williamsport, PA. Experience in Project Management (including Accounting, Field Service, and Manufacturing) since 1994.

Traci Kreitzman
Project Manager
Attended Marquette University. Experience in Supply Chain and New Product Development since 1998.

Stephen Yalung
Project Manager
A.A.S. degree in Design and Drafting/Illinois Valley Community College, Oglesby, IL. Experience in water/wastewater industry since 2019.

Jeff Alaniz
Project Manager
B.S. degree in Business Management/Saint Leo University, FL.

Jim Evans
Project Manager
B.S. degree in Marketing/Illinois State University. Experience in customer service since 1992.

Mike Swartz
Project Manager
B.A. degree in Business Management/Rockford University, Rockford, IL. Experience in customer service since 2015.

EMPLOYEE PROFILES

RESEARCH & DEVELOPMENT

Terrence Reid, P.E.
Director of Research & Development
M.S. degree in Product Design and Development/ Northwestern University, Evanston, IL. B.S. degree in Civil & Environmental Engineering/University of Wisconsin-Madison, WI. Experience in water/wastewater industry since 1989.

Joe Campanaro
Senior R&D Engineer
M.S. degree in Environmental Engineering/New York University, New York, NY. B.S. degree in Biology/Stony Brook University, Stony Brook, NY.

Darryl Gravagno
Senior Research & Development Engineer
B.S. degree in Environmental Engineering/University of Wisonconsin, Platteville, WI. A.A.S. degree in Science, Rock Valley College, Rockford, IL. Experience in water/ wastewater industry since 2015.

Chris Kurshinsky
Research & Development Technical Systems Supervisor
Experience with product development since 1995. Engineering Supervisor R&C Test Lab from 2010-2017 and named as inventor of several patents. Experience as Technical Center Supervisor in the automotive industry 1995-2010. Experience in water/wastewater industry since 2017.

Christopher Roegner
Research & Development Engineer
B.S. degree in Chemical Engineering/Iowa State University, Ames, IA.

ENGINEERING

Robert Wiegand
Engineering Director
M.B.A. degree/University of Wisconsin-Madison. B.S degree in Electrical Engineering Technology/ Bradley University, Peoria, IL. 10+ years experience in paper industry with Beloit Corp. Experience in water/ wastewater industry since 2000.

Kyle Olson
Technical Training and Development Manager
Experience in Engineering and Manufacturing since 2007. Experience in water/wastewater since 2025.

ELECTRICAL STANDARDS

Gerald Schneider, P.E.
Electrical Standards Supervisor
B.S. degree in Electrical Engineering/University of Wisconsin, Madison, WI. Experience in water/ wastewater industry since 1989.

Mike Hevey
Senior Electrical Engineer
A.A.S. degree in Electromechanical Technology/ Chippewa Valley Technical College, Eau Claire, WI. 16+ years electrical controls engineering experience including control system and software validation and design, development and implementation of systems incorporating PLC, HMI, SCADA, hardware design, power distribution and MCC specification.

Aaron Halloway
Senior Electrical Designer
B.A. degrees in Physics and Mathematics/University of Wisconsin-Whitewater. Experience in electrical design since 2017.

Junji Sakashita
Services & Electrical Engineer
Attended the Hiroshima Institute of Technology, Hiroshima, Japan. Experience in the wastewater treatment industry, specifically Ozone, since 2011 at Fuji Electric Corp. of America/Metawater USA.

ELECTRICAL CONTRACT

Mondi Anderson
Controls Engineer
B.S. degree in Computer Science/Neumont University, Salt Lake City, UT.Experience in water/wastewater industry since 1998.

Brian Pass
Electrical Design Engineer - Group Lead
A.A.S. degree in Electrical/Electronic Drafting/Herzing Institute of Technology, Madison, WI. Experience in water/wastewater industry since 2000.

Jeff Johnson
Electrical Engineering Manager
M.B.A. degree and B.S. degree in Electrical Engineering Technology/Northern Illinois University, DeKalb, IL. Experience in electrical engineering since 2003.

ELECTRICAL CONTRACT (continued)

Kent Campbell
Senior Operations Technology Engineer
Degree in Engineering Electronic Technician/Radio College of Canada (RCC), Toronto, Calanda. Experience in water/wastewater industry since 2019.

Dave Johnson
Senior Electrical Engineer - Group Lead
B.S. degree in Electrical Engineering/Milwaukee School of Engineering, Milwaukee, WI. Experience in water/wastewater industry since 2000.

Jeremy Try
Senior Electrical Engineer - Group Lead
B.S. degree in Electrical Engineering/Southern Illinois University, Carbondale, IL. A.A.S. degree in Engineering/Rock Valley College, Rockford, IL. Experience in engineering since 1983.

Micah Carlson
Electrical Engineer
B.S. degree in Computer Science/Mathematics/Olivet Nazarene University, Bourbonnais, IL. Experience in water/wastewater since 2024.

Brad Christian
Senior Electrical Engineer
A.A.S degree Robotics/ Automation Technology, Indian Hills community College, Ottumwa, IA.

Bill Douglas
Electrical Design Engineer
B.S. degree in Electrical Engineering/University of Wisconsin-Platteville. A.A.S. degree in Mathematics and Science/University of Wisconsin at Rock County. A.S. degree in Electronic/Electrical Drafting/Wisconsin School of Electronics. Experience in electrical engineering since 2003.

Chris Guntermann
Electrical Designer
Experience in wastewater/water industry since 2022.

Samuel Costa
Electrical Designer
Experience in mechanical engineering since 2022 and water/wastewater since 2025.

Connor Johnson
Electrical Engineer
B.S. degree in Computer and Electrical Engineering/University of Wisconsin-Stout. Experience in electrical engineering since 2022.

Deborah Lewis
Electrical Designer
Experience in water/wastewater industry since 2021.

Nishant Patel
Electrical Engineer
B.S. degree in Computer Engineering/University of Illinois-Chicago (UIC), Chicago, IL. Experience in water/wastewater since 2024.

Aidan Morrison
Electrical Engineer
B.S. degree in Computer Science/Western Governors University, Milcreek, UT. A.A.S./Rock Valley College, Rockford, IL. Experience in control system engineering since 2023, water/wastewater since 2024.

Edi Schardl
Senior Electrical Engineer
B.A. degree in Business Administration/SFB Rapperswil, Switzerland. B.S. degree in Electrical Engineering/Juventus Engineering School Zürich, Switzerlad. Experience in programming and engineering since 1985.

Leeroy Majewicz
Electrical Engineer
A.A.S. degree in Maintenance Technology/Elgin Community College, Elgin, IL. Experience in water/wastewater industry since 2021.

Daniel Rodriguez
Electrical Engineer
B.S. degree in Mechatronics Engineering/Northern Illinois University, Dekalb, IL. Experience in water/wastewater industry since 2025.

Leslie Vandre
Electrical Design Engineer
A.A.S. degree in Math and Science/Kishwaukee College, Malta, IL. Controls design experience since 1993, Experience in water/Wastewater industry since 2025.

EMPLOYEE PROFILES

MECHANICAL STANDARDS

David Smith
Mechanical Engineering Manager
B.S. degree in Mechanical Engineering/University of Wisconsin-Madison. Experience in wastewater since 2000. Experience in mechanical design engineering and development since 1986, including 4 years at Beloit Corporation. Received patents for tissue machine equipment.

Devon Bockhop
Senior Mechanical Designer
A.A.S. degree in Drafting and Design/Morrison Institute of Technology, Morrison, IL. Experience in water/wastewater industry since 2019.

Marcus Ippolito
Mechanical Designer
Experience in machine tool technologies since 2021 and manufacture engineering since 2024.

Ethan Wicks
Mechanical Engineer
B.S. degree in Biomedical Engineering/University of Iowa, Iowa City, IA. Experience in mechanical engineering since 2021. Experience in water/wastewater industry since 2025.

Noah Dellamater
Mechanical Engineer
B.S. degree in Mechanical Engineering/Olivet Nazarene University, Bourbonnais, IL. Experience in water/wastewater industry since 2019.

Luke Enser
Aftermarket Support Engineer
B.S. degree in Mechanical Engineering/Northern Illinois University, Dekalb, IL. A.A.S. Sciences/Rock Valley College, Rockford, IL Experience in water/wastewater since 2025.

Mike Schmitz
Principal Engineer
B.S. degree in Mechanical Engineering/University of Wisconsin, Milwaukee, WI. Experience in water/wastewater industry since 2008.

Brant Uppenkamp
Mechanical Designer
A.A.S. degree in Mechanical Design/Blackhawk Technical College. A.A.S. degree in Architectural Design/Milwaukee Area Technical College. Experience in water/wastewater industry since 2012.

Edward Wright
Manufacturing Support Engineer
B.S. degree in Mechanical Engineering/University of Houston, Houston, TX. Experience in mechanical engineering since 2016, water/wastewater since 2024.

MECHANICAL CONTRACT

Dan Durdan
Manager, Contract Engineering & Estimating
A.A.S. degree in Mechanical Engineering/IL Valley Community College, Oglesby, IL. Experience in water/wastewater industry since 2005.

Tim Austin
Senior Mechanical Designer
A.A.S. degree in Computer Aided Mechanical Design/Rock Valley College, Rockford, IL. Experience in design engineering since 1997.

Beth Bahr
Senior Mechanical Designer
A.A.S. degree in Mechanical Engineering/Blackhawk Technical College, Janesville, WI. Experience in water/wastewater industry since 2001.

Chris Carlson
Design Engineer
A.A.S degree in Engineering Technology-Design and Drafting/Morrison Institute of Technology, Morrison, IL. Experience in water/wastewater industry since 2007.

Scott Howarth
Contract Engineering Supervisor
A.A.S. degree in Mechanical Drafting/Morrison Institute of Technology, Morrison, IL. Drafting experience since 2002.

Nate Haug
Contract Engineering Supervisor
B.S. Manufacturing Engineering Technology/Northern Illinois University, DeKalb, IL. Experience in mechanical engineering since 2012, water/wastewater since 2024.

MECHANICAL CONTRACT (continued)

Thomas Kubalewski
Mechanical Engineer
B.S. degree in Mechanical Engineering/Northern Illnois University, DeKalb, IL. Experience in design engineering and manufacturing design since 2007.

Troy Lieb
Mechanical Designer
A.A.S. degrees in Mechanical Engineering Technology and Mechanical Design/Highland Community College, Freeport, IL. Experience in mechanical design since 2006.

Matthew Martineau
Mechanical Designer
M.S. degree in Engineering Technology/Purdue University, West Lafayette, IN. B.S. degree in Applied Manufacturing Technology/Northern Illinois University, DeKalb, IL. A.A.S. degree in Manufacturing Engineering Technology/Rock Valley College, Rockford, IL. A.O.S. degree in Computer-Aided Drafting/Hamilton Technical College, Davenport, IA. Experience in mechanical design since 2007. Experience in water/wastewater industry since 2022.

Darshil Choksi
Mechanical Designer
B.S. Mechanical Engineering/University of Alabama, Huntsville, AL. Experience in water/wastewater since 2022

Joseph Massari
Design Engineer
A.A.S. degree in Machine Design Technology/Rock Valley College, Rockford, IL. Mechanical and design experience since 1979. Experience in water/wastewater industry since 2002.

Alex Neisewander
Mechanical Designer
Experience in mechanical design since 2017. Experience in water/wastewater industry since 2023.

Joe Wakefield
Mechanical Designer
B.S. degree in Mechanical Engineering/Michigan Technological University, Houghton, MI. Experience in mechanical design since 1993.

Ray Watkins
Mechanical Designer
A.A.S. degrees for Mechanical Design and Industrial Design Technician/Blackhawk Technical College, Janesville, WI. Experience in mechanical design since 2005.

Bryce Worley
Mechanical Designer
Attended ITT Tech-online. Attended Morrison Institute of Technology, Morrison, IL. Experience in water/wastewater industry since 2021.

Jay Jochheim
Mechanical Designer
B.S. Mechanical Engineering/Rose-Hulman Inst. of Technology, Terre Haute, IN. Experience in water/wastewater since 2024.

ESTIMATING

Ali Groen
Cost Estimating Supervisor
A.A.S. degree in Construction Technology/Morrison Institute of Technology, Morrison, IL. Experience in water/wastewater industry since 2008.

Zach Dal Pra
Design Analyst
B.S. degree in Mechanical Engineering/Michigan Technological University, Houghton, MI. Experience in water/wastewater industry since 2023.

Josh Layman
Design Analyst
A.A.S. Mechanical Engineering & Industrial Design Certificate/Oakton Community College, Des Plaines, IL. A.A.S. Electronics Communication and Engineering/ITT Technical Institute, Experience in water/wastewater since 2024.

Scott Tripp
Senior Design Analyst
Experience in Engineering since 1989. Experience in water/wastewater industry since 1995.

Ramiro Verastegui
Design Analyst
A.A.S. Manufacturing Engineering Technology/Rock Valley College, Rockford, IL. Experience in water/wastewater since 2025

EMPLOYEE PROFILES

ESTIMATING (continued)

Jordan Van Barriger
Design Analyst
B.S. degree in Mechanical Engineering, Olivet Nazarene University, Bourbonnais, IL. A.A.S. degree in Science and Engineering, Waubonsee Community College, Sugar Grove, IL. Experience in water/wastewater since 2025.

EQUIPMENT AND SERVICES GROUP

AERATION & MIXING

Loryn Martin
Product Manager - Aeration & Mixing Technologies
M.B.A. degree in Business Administration/University of Phoenix, Phoenix, AZ. B.A. degree in Communication with emphasis on Public Speaking/ Loyola University, Chicago, IL. A.A.S. degree/Rock Valley College, Rockford, IL. Experience in water/wastewater industry since 2013.

Zachery Swanson
Application Engineer
B.S. degree in Mechanical Engineering/Northern Illinois University, DeKalb, IL. Experience in water/wastewater industry since 2023.

CUSTOMER SERVICE

Stephanie Duchow
Director of Customer Service
A.S. degree of Rock Valley College. Experience in aftermarket and manufacturing customer service since 2014 including parts, service, repairs and retrofits.

Tyrone Pratt
Customer Service Manager
B.S. degree in Marketing/Southern Illinois University, Carbondale, IL. Experience in Field Service/ Journeyman Electrician for industrial, commercial and residential since 1987.

Evan Price
Customer Service Process Specialist
M.S. degree and B.S. degree in Biological Systems Engineering/University of Wisconsin-Madison, WI. Experience in water/wastewater industry since 2018.

Michael Spragg
Technical Support Specialist
Experience with submarine maintenance for 20 years in the Navy. Experience as a Field Service Engineer for 13 years. Experience in water/wastewater industry since 2019.

Dean Woyak
Customer Service Process Specialist
B.S. degree in Water Resources/University of Wisconsin-Stevens Point. Experience in water/wastewater industry since 1994.

FIELD SERVICE

Curt Larson
Senior Field Service Specialist
Experience in water/wastewater industry since 2003.

Benjamin Morton
Senior Field Service Specialist
PA DEP Wastewater Certificate. Experience in water/ wastewater industry since 1998.

Tom Mowery
Senior Field Service Specialist
Experience in water/wastewater industry since 1996.

John Edelen
Field Service Specialist
B.S. degree in Science & Business Administration/ University of Central Florida, Orlando, FL. Experience in Field Service since 1998.

Tony Smith
Senior Field Service Specialist
A.A.S. degree in Electronics Engineering Technology/ITT Technical Institute, Norwood, OH. Experience in water/ wastewater industry since 2003.

Mike Rushing
Field Service Specialist
B.S. degree in Biology/University of North Texas, Denton, TX. Experienec in water/wastewater indsutry since 1999.

Edward Sanchez
Field Service Specialist
Certified in Mechanical Technology. Experience in field service since 2000.

EMPLOYEE PROFILES

FIELD SERVICE (continued)

Anthony Hart
Field Service Specialist
Cerfitied in Industrial Electrical. Experience in field service since 2019.

Aridane Rodriguez
Field Service Specialist
A.A.S. degrees in Graphic Design and Industrial Controls and Robotics/Dunwoody College of Technology. Experience in field service since 2018.

Camilo Rodriguez
Field Service Specialist
A.S. degree in Specialized Technology, Maintenance Electricity and Construction Technology/Triangle Tech Bethlehem, PA. Expereince in field service since 2018.

Jackson Blacketer
Field Service Specialist
A.A.S. degree in Instrumentation and Computerized Control Systems/Texas State Technical College, Waco, TX. Experience in electronics technology since 2015.

Jeff Wheaton III
Field Service Specialist
A.A.S. degree in Applied Science/ITT Technical Institute, Houston, TX. Experience in Field Service since 2014.

Christopher White
Field Service Specialist
Experience in water/wastewater industry since 2020.

Raymond Ayala
Field Service Specialist
A.S. degree in Electronics. Experience in mechanical and electronic repair since 2003

Joshua Frieze
Field Service Specialist
B.S. degree in Electronics Engineering Technology. Experience in field service since 2007 and in water/wastewater industry since 2018.

Richard Rutherford
Field Service Specialist
Experience in field service for electrical and mechanical systems since 2005.

Ryan Maldonado
Field Service Specialist
Experience in field service in water/wastewater industry since 2014.

Cristen Jones
Field Service Specialist
Experience in water/wastewater industry since 2021.

AFTERMARKET SERVICES

Paul Klebs
Director, Aftermarket Sales
B.S. degree in Chemistry/University of Wisconsin-Madison, WI. Graduate coursework in Environmental Studies/University of Wisconsin-Green Bay, WI. Certified operator in the state of Wisconsin. Experience in water/wastewater industry since 1992.

Tim Lamont
Senior Aftermarket Sales Representative
B.S. degree in Geology/University of Illinois, Urbana-Champagin, IL. Experience in Sales and Customer Service since 2000. 5 years experience with retail and manufacturing in the electrical industry.

Thomas Mangione
Aftermarket Senior Sales Engineer
B.S. in Chemical Engineering/University of Houston, Houston, TX. Experience in Water/Wastewater since 2000.

Michaela Villarreal
Aftermarket Sales Supervisor
B.A. degree in Business Administration from Ashford University. Experience in Sales and Customer Service since 2010. Experience in Water and Wastewater Sales and Customer Service since 2018.

Denise Boehm
Aftermarket Sales Representative
Experience in Customer Service in HVAC, packaging and processing equipment and wastewater since 2000.

Leann Torrisi
Administration Assistant for Aftermarket Sales
Experience in administrative assistance since 2004.

AFTERMARKET SERVICES (continued)

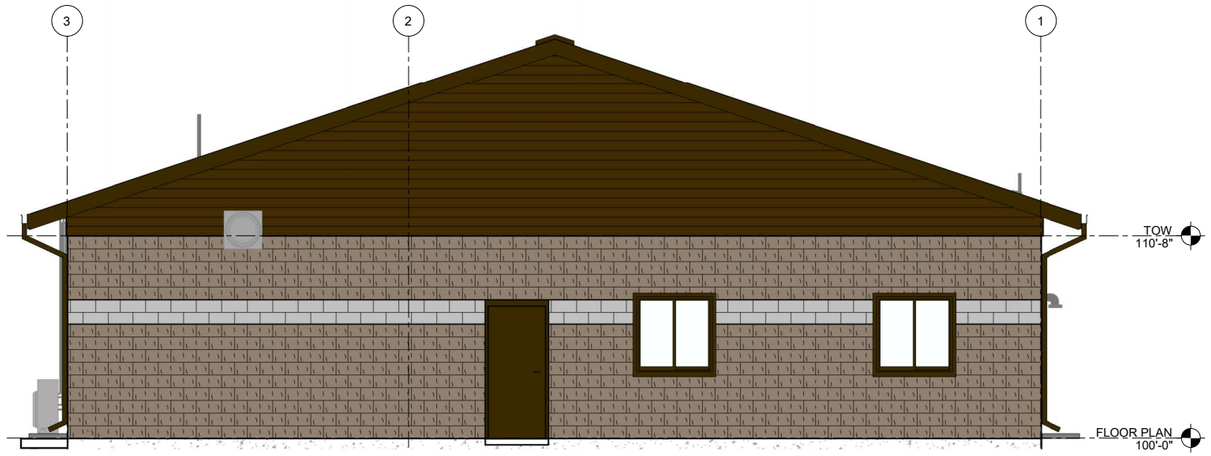
Denise Uchacz
Aftermarket Sales Representative
Associates in Arts degree. Experience in water/ wastewater industry since 2015 with previous experience in inside sales and customer service.

Mariano Rosado
Aftermarket Rental Fleet Supervisor
Experience in product development and manufacturing initiatives and collaborating with the engineering departments to design and refine machined products and manufacturing procedures.

AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

6306 N. Alpine Rd.
Loves Park, IL 61111-7655
p 815.654.2501 f 815.654.2508
www.aqua-aerobic.com
solutions@aqua-aerobic.com

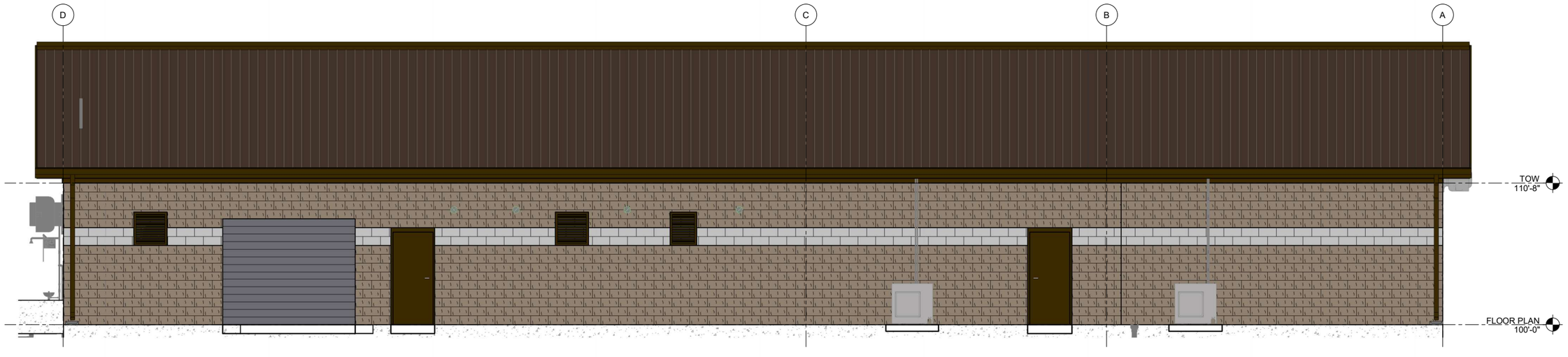
Bulletin #110 07/25



B1 WEST COLOR

1/4" = 1'-0"

1/4" 0 2' 4' 8'



A1 NORTH COLOR

1/4" = 1'-0"

1/4" 0 2' 4' 8'

KELLER ASSOCIATES
233 SW Wilson Avenue, Suite 203
Bend, OR 97702
(971) 405-6331

60% Design Review Not For Construction

NO.	REVISIONS	DATE

450 East Main Street
John Day, Oregon 97845
(541) 575-0028

CITY OF JOHN DAY

WASTEWATER TREATMENT FACILITY IMPROVEMENT PROJECT

COLOR ELEVATIONS

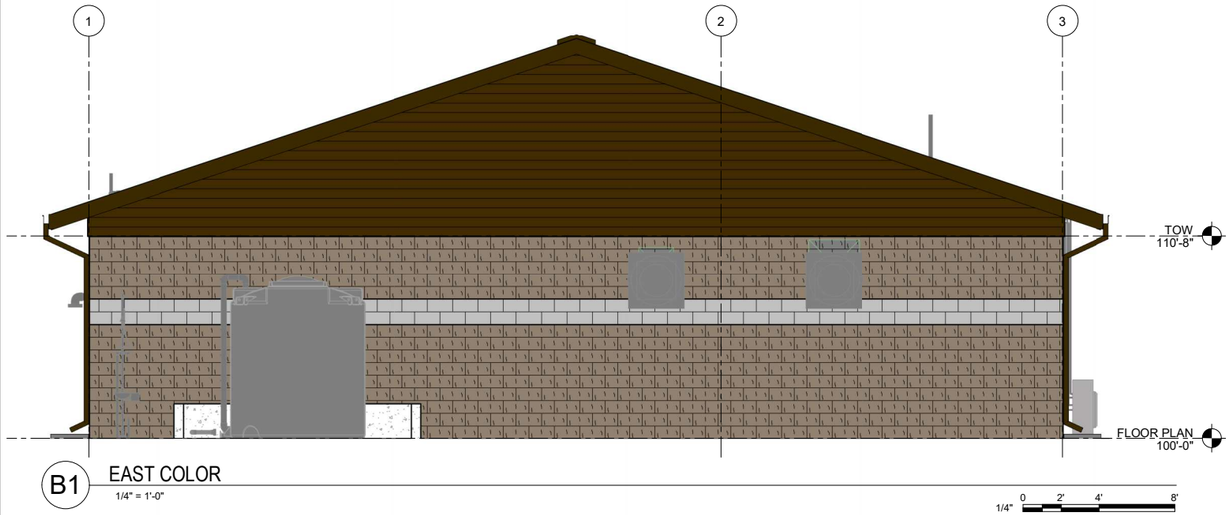
DRAWN: BPB | CHECK: DMT

VERIFY SCALE: Scales based on 22"x34" prints.

1-1/2 Inches

PROJECT NO. 225008-060 | PAGE

SHEET NO. A-203-C



B1 EAST COLOR

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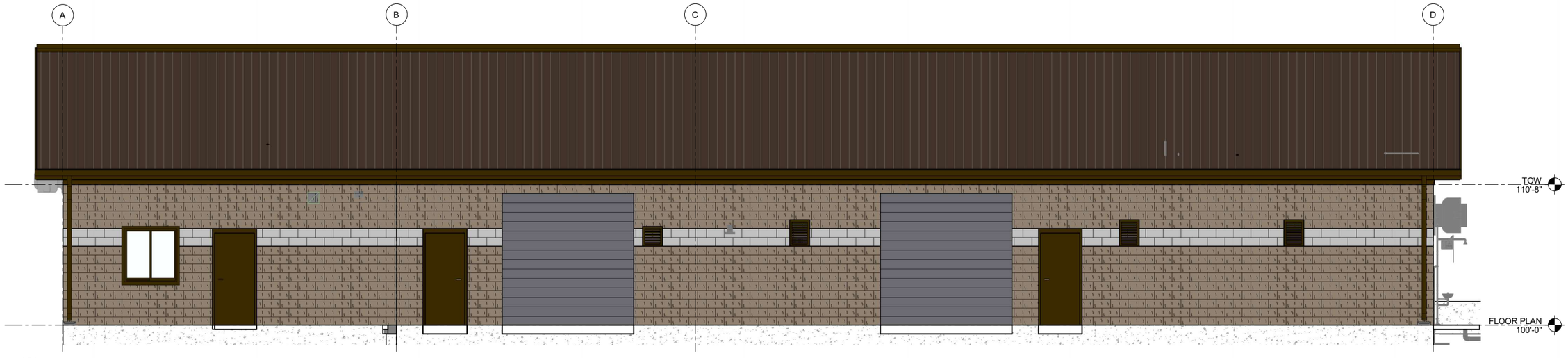


A1 SOUTH COLOR

1/4" = 1'-0"

1/4" 0 2' 4' 8'

KELLER ASSOCIATES
233 SW Wilson Avenue, Suite 203
Bend, OR 97702
(971) 405-6331

60% Design Review Not For Construction

NO.	REVISIONS	DATE

450 East Main Street
John Day, Oregon 97845
(541) 575-0028

CITY OF JOHN DAY

WASTEWATER TREATMENT FACILITY IMPROVEMENT PROJECT

COLOR ELEVATIONS

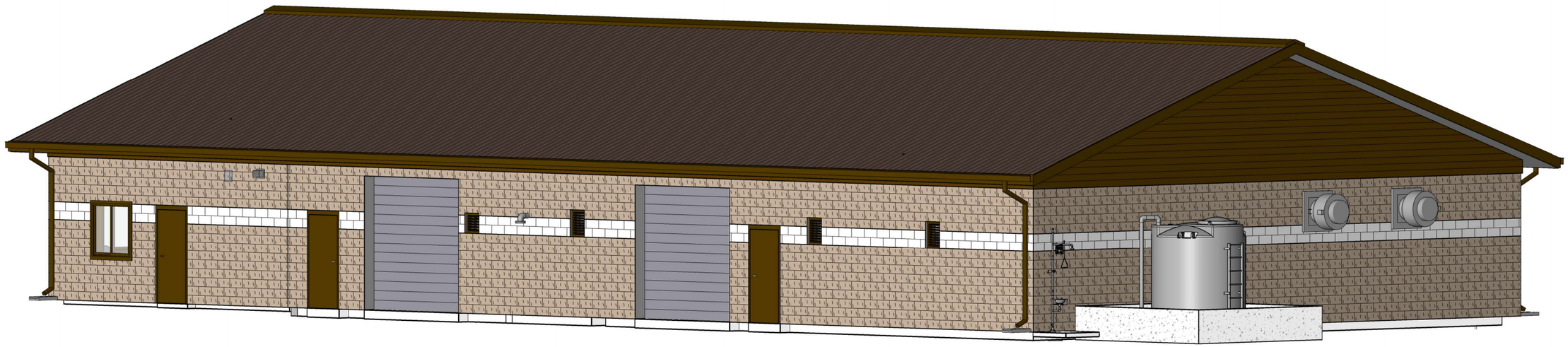
DRAWN: BPB | CHECK: DMT

VERIFY SCALE: Scales based on 22"x34" prints.

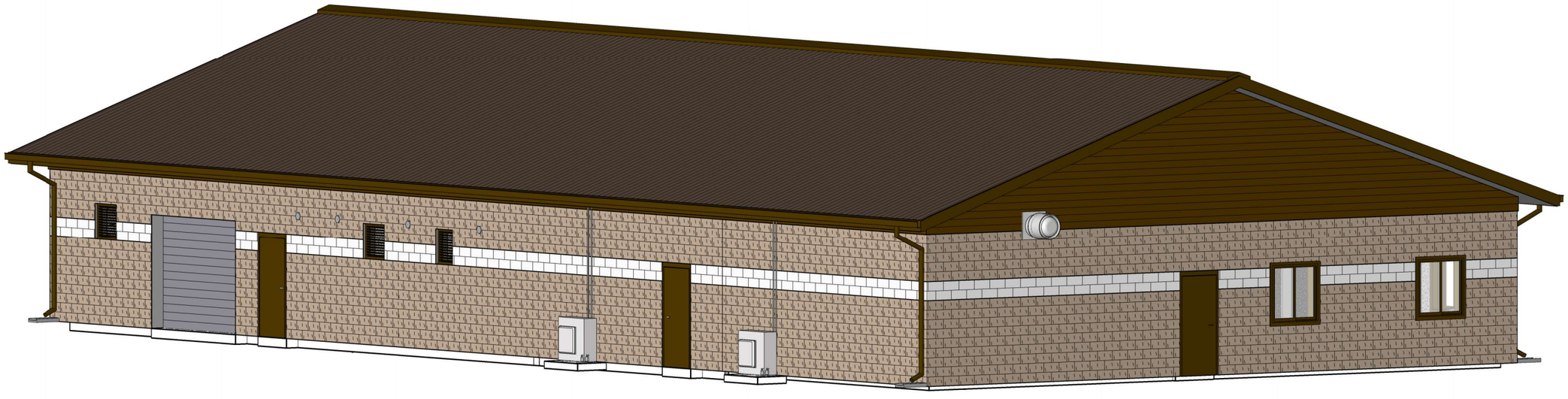
1-1/2 Inches

PROJECT NO. 225008-060 | PAGE

SHEET NO. A-204-C



2 3D-SE



1 3D-NW

KELLER ASSOCIATES
233 SW Wilson Avenue, Suite 203
Bend, OR 97702
(971) 405-6331

60% Design Review Not For Construction

NO.	REVISIONS	DATE

450 East Main Street
John Day, Oregon 97845
(541) 575-0028

CITY OF JOHN DAY

WASTEWATER TREATMENT FACILITY IMPROVEMENT PROJECT

COLOR PERSPECTIVES

DRAWN: BPB | CHECK: DMT

VERIFY SCALE: Scales based on 22"x34" prints.

1-1/2 Inches

PROJECT NO. 225008-060 | PAGE

SHEET NO. A-205-C

9/16/2025

John Day Sewer & Wastewater Treatment Plant Improvements
October 2025 Progress Report for City Council

John Day's Sewer Improvements Project has six primary tracks that are the focus of our efforts:

1. Section 7/NEPA Environmental Compliance
2. Project Funding
3. DEQ Permitting
4. Preliminary Site Preparation for Companion Projects
5. Engineering Design and Equipment Procurement
6. Community Engagement and Outreach

This memo provides a progress summary for all six tracks over October – November 2025. Our top priority currently is Task 2) Project Funding and Task 5) Engineering Design.

High Notes:

- Task 2: DEQ-CWSRF funding for Final Design Amendment #1 in front of Council for approval. Will pay for '24-25 grant unreimbursed Ducote fees, Keller Amendment, SBR purchase, and 2026 Ducote fees.
- Task 4: Monitoring Plans approved by DEQ.
- Task 5: First few months of Final Design Engineering completed 60% completed, working on 90%.
- Task 5: Monitoring wells scheduled to be drilled on 12/20 by Yellow Jacket.

Task %	Task
100%	WWTF Complete!
90%	Construct the WWTF
80%	Bid the WWTF Construction
70%	Pre-Construction Equipment
60%	Construction Funding Secured
50%	Final Design Engineering
40%	Environmental Clearance
30%	Preliminary Engineering
20%	Procuring Engineers and
10%	Securing Final Design Funding

1. Section 7/NEPA Environmental Compliance (Task 1)

- DEQ-CWSRF has adopted the environmental and put it out for publication.

2. Project Funding (Task 2)

The City has secured a $546,926 Design Loan through the DEQ-Clean Water State Revolving Loan Fund program. This will position the City in a favorable position to increase the loan prior to construction. At this time, the City was not able to have DEQ commit the full amount because the plans and specifications must be approved by DEQ prior to that commitment of construction funds. However, having an open Design Loan puts the City in priority position when we are ready to have DEQ commit all the construction funds.

The Design Loan extends the runway for the City's available funding to reach Construction. The equipment pre-purchases (equipment funds spent during Design) the City has accomplished will also decrease the construction funding by that amount.

Current WWTF Project Budget Status			
Funding	*Number*	*Amount Awarded*	*Balance*
Community Development Block Grant	P18011	$2,500,000	$0
HB-5006/DAS ARPA Funds	8154	$1,500,000	$0
Water/Wastewater Financing Program	Y21006	$2,500,000	$1,311,999
DEQ-CWSRF Final Design		$546,926*	$546,926
TOTALS		**$7,046,926**	**$1,858,925**

*2025 DEQ Final Design Funding Amendment	
Ducote 2024-2025 *(Reimbursing City match funds)*	$18,426.00
Keller Amendment #1	$353,500.00
Ducote 2026 Fees	$30,000.00
SBR Package	$145,000.00
DEQ Final Design Request	**$546,926.00**
Loan	$273,463.00
Grant	$273,463.00

3. DEQ Permitting (Task 3)

The Department of Environmental Quality (DEQ) issued a new wastewater pollution control facility (WPCF) permit effective on May 1, 2022 (Permit Number: 103281; File Number: 127619). The permit is good for ten years and expires December 31, 2032.

Status:

- DEQ approved the Surface Water and Groundwater Monitoring Plans.
- No response from DEQ on the NMFS/USFWS-approved Conservation Measures Monitoring Plan.
- Keller is meeting monthly with DEQ on the plant design, permitting issues, and is having a productive and open discussion.

4. Preliminary Area Preparation for Companion Projects (Task 4)

All Task 4 projects closed out.

5. ENGINEERING DESIGN (TASK 5)

Updates:

- Sewer Plant Final Design Engineering
    - Two (2) equipment procurements for the WWTF have been awarded, invoiced, and grant reimbursement in process.
    - One (1) additional equipment procurement being discussed tonight.
    - Team has completed the 60% design; working on 90% design set with a cost estimate that reflects all costs for construction, engineering, inspection, and other miscellaneous costs.
- Well Drilling – Yellow Jacket Drilling
    - Scheduled for December 20, 2025.

6. COMMUNITY ENGAGEMENT AND OUTREACH (TASK 6)

Status:

- On-going and consistent Council updates from Ducote Consulting
- City Manager Melissa Bethal gives monthly updates on Coffee Time via KJDY 1400 AM.
- City Staff and consultants team held a Town Hall at the Senior Center on January 23, 2024.
- City Staff and consultants team held another Open House at the Fire Station on March 25, 2025.

CLEAN WATER STATE REVOLVING FUND
LOAN AGREEMENT
NO. RC0024

BETWEEN

THE STATE OF OREGON
ACTING BY AND THROUGH ITS
DEPARTMENT OF ENVIRONMENTAL QUALITY

AND

CITY OF JOHN DAY

TABLE OF CONTENTS

THIS LOAN AGREEMENT ("**Agreement**") is made and entered into as of the date ("**Effective Date**") it is fully executed by both parties (and in the case of the State, approved by the Attorney General's Office, if required) and is by and between the **State of Oregon, acting by and through its Department of Environmental Quality** ("**DEQ**"), and the **Borrower** (as defined below). Unless the context requires otherwise, capitalized terms not defined below shall have the meanings assigned to them by ARTICLE 9 of this Loan Agreement. The reference number for the Loan made pursuant to this Loan Agreement is Loan No. RC0024.

DEQ agrees to make, and Borrower agrees to accept, the Loan on the terms and subject to the conditions set forth below.

ARTICLE 1: THE LOAN - SPECIFIC TERMS

DEQ agrees to make the Loan on the following terms and conditions:

(A) BORROWER: City of John Day

(B) BORROWER'S ADDRESS: 450 E Main St
John Day, OR 97845

(C) LOAN AMOUNT: $546,926

(D) TYPE AND PURPOSE OF LOAN. The Loan is made by DEQ pursuant to OAR Section 340-054-0065(1)(b) for the purpose of financing the Project and is secured by the Borrower's pledge of its full faith and credit and taxing power.

(E) PROJECT TITLE: New Wastewater Treatment Facility ("WWTF") Construction

(F) DESCRIPTION OF THE PROJECT: This loan funds the design for the construction of a new WWTF for the City of John Day. The existing WWTF is well past its useful life and in need of a complete replacement and reconfiguration. This project is essential to ensure human health and safety for residents within the City of John Day as well as complying with environmental regulations and Clean Water Act standards.

(G) INTEREST RATE: Two and 07/100 (2.07%) per annum. Calculation of interest is also discussed in ARTICLE 2(E) and in ARTICLE 2(F)(4) of this Agreement.

(H) REPAYMENT PERIOD: Ending no later than (a) thirty (30) years after the Completion Date or (b) thirty (30) years after the estimated Completion Date set forth in ARTICLE 3(A)(10), whichever date is earlier.

(I) TERMS OF REPAYMENT: An interest-only payment within six months after the estimated Project Completion Date set forth in ARTICLE 3(A)(10) and thereafter semi-annual payments of principal and interest in accordance with APPENDIX A and ARTICLE 2(F) of this Agreement.

(J) PLEDGE: The Borrower hereby pledges its full faith and credit and taxing power within the limitations of Article XI, Sections 11 and 11b, of the Oregon Constitution to pay the amounts due under the Loan Agreement, which are payable from and secured by all legally available funds of the Borrower.

(K) ANNUAL FEE: An annual fee of 0.5% of the Outstanding Loan Amount (as determined prior to the posting of the payment due on that date) is due during the Repayment Period commencing with the second payment date hereunder and annually thereafter.

(L) LOAN FORGIVENESS: If the Borrower completes the Project, and provided there is no default of any of the terms hereof, DEQ shall forgive fifty percent (50%) of the Loan or $273,463, whichever is less (the portion of the Loan that is forgiven being referred to as the "Forgivable Loan"), on the date the first repayment is due hereunder. The amount of the Loan forgiveness will be determined when the Final Loan Amount is calculated.

ARTICLE 2: GENERAL LOAN PROVISIONS

(A) AGREEMENT OF DEQ TO LOAN. DEQ agrees to loan the Borrower an amount not to exceed the Loan Amount, subject to the terms and conditions of this Loan Agreement, but solely from funds available to DEQ in the Water Pollution Control Revolving Fund for its Clean Water State Revolving Fund program. This Loan Agreement is given as evidence of a Loan to the Borrower made by DEQ pursuant to ORS Chapters 190, 286A, 287A, and 468, and OAR Chapter 340, all as amended from time to time, consistent with the express provisions hereof.

(B) AVAILABILITY OF FUNDS. DEQ's obligation to make the Loan described in this Agreement is subject to the availability of funds in the Water Pollution Control Revolving Fund for its CWSRF program, and DEQ shall have no liability to the Borrower or any other party if such funds are not available or are not available in amounts sufficient to fund the entire Loan described herein, as determined by DEQ in the reasonable exercise of its administrative discretion. Funds may not be available ahead of the estimated schedule of disbursements submitted by the Borrower, which is attached as APPENDIX B. This schedule may be revised from time to time by the parties without the necessity of an amendment by replacing the then current APPENDIX B with an updated APPENDIX B which is dated and signed by both parties. Furthermore, DEQ's obligation to make any disbursement hereunder shall terminate on December 31, 2028.

(C) DISBURSEMENT OF LOAN PROCEEDS.

(1) Project Account(s). Loan proceeds (as and when disbursed by DEQ to the Borrower) shall be deposited in a Project account(s). The Borrower shall maintain Project account(s) as segregated account(s). Funds in the Project account(s) shall only be used to pay for Project costs, and all earnings on the Project account(s) shall be credited to the account(s).

(2) Documentation of Expenditures. The Borrower shall provide DEQ with written evidence of materials and labor furnished to and performed upon the

Project, including, without limitation, invoices, verified contractor's pay requests, receipts, and other evidence that DEQ may require in its sole discretion (collectively, "Cost Documentation"). DEQ will disburse funds to pay Project costs only after the Borrower has provided Cost Documentation satisfactory to DEQ that such Project costs have been incurred (whether or not already paid by Borrower) and qualify for reimbursement under this Agreement and CWSRF Program Rules.

(3) Adjustments and Corrections. DEQ may at any time review and audit requests for disbursement and make adjustments for, among other things, ineligible expenditures, mathematical errors, items not built or bought, unacceptable work and other discrepancies. Nothing in this Agreement requires DEQ to pay any amount for labor or materials unless DEQ is satisfied that the claim therefor is reasonable and that the Borrower actually expended and used such labor or materials in the Project. In addition, DEQ shall not be required to make any disbursement which would cause the total of all disbursements made hereunder (including the requested disbursement) to be greater than the total estimated cost of the work completed at the time of the disbursement, as determined by DEQ.

(4) Contract Retainage Disbursement. DEQ will not disburse Loan proceeds to cover contractor retainage unless the Borrower is disbursing retainage to an escrow account and provides proof of the deposit, or until the Borrower provides proof that it paid retained funds to the contractor.

(D) AGREEMENT OF BORROWER TO REPAY. The Borrower agrees to repay all amounts owed on this Loan as described in ARTICLE 1(I) and ARTICLE 2(F) in U.S. Dollars in immediately available funds at the place listed for DEQ in ARTICLE 10(A). In any case, the Borrower agrees to repay all amounts owed on this Loan within the Repayment Period.

(E) INTEREST. Interest will accrue at the rate specified in ARTICLE 1(G) from the date that a disbursement hereunder is mailed or delivered to the Borrower or deposited into an account of the Borrower. Interest will accrue using a 365/366 day year and actual days elapsed.

(F) LOAN REPAYMENT.

(1) Preliminary Repayment Schedule; Interim Payments. The attached APPENDIX A is a preliminary repayment schedule based on the estimated date of the first disbursement hereunder and Loan Amount. Until the final repayment schedule is effective, the Borrower shall make the payments set forth in the preliminary repayment schedule.

(2) Final Repayment Schedule. After the Borrower has submitted its final request for Loan proceeds and DEQ has made all required disbursements hereunder, DEQ will determine the Final Loan Amount and prepare a final payment schedule that provides for level semi-annual installment payments of principal and interest (commencing on the next semi-annual payment date), each in an amount sufficient to pay accrued interest to the date of payment and to pay so much of the principal balance as to fully amortize the then Outstanding Loan Amount over the remaining Repayment Period.

(3) Crediting of Scheduled Payments. A scheduled payment received before the scheduled repayment date will be applied to interest and principal on the scheduled

repayment date, rather than on the day such payment is received. Scheduled payments will be applied first to fees due, if any, and then to interest, according to the applicable repayment schedule, and then to principal.

(4) Crediting of Unscheduled Payments. All unscheduled payments, including any prepayments and partial payments, will be applied first to fees due, if any, and then to accrued unpaid interest (which will be computed as otherwise provided in this Agreement, except that interest from the last payment date will be calculated using a 365/366 day year and actual days elapsed), and then to principal. In the case of a Loan prepayment that does not prepay all of the principal of the Loan, DEQ will determine, in its sole discretion, how it will apply such Loan prepayment to the Outstanding Loan Amount. After a partial payment, DEQ may, in its sole and absolute discretion, reamortize the Outstanding Loan Amount at the same interest rate for the same number of payments to decrease the Loan payment amount; provided, however, that nothing in this Agreement requires DEQ to accept any partial payment, except as otherwise expressly provided herein, or to reamortize the Outstanding Loan Amount if it accepts a partial payment.

(5) Final Payment. The Outstanding Loan Amount, all accrued and unpaid interest, and all unpaid fees and charges due hereunder are due and payable no later than (a) thirty (30) years after the Completion Date or (b) thirty (30) years after the estimated Completion Date set forth in ARTICLE 3(A)(10), whichever date is earlier.

(G) PREPAYMENT.

(1) Optional Prepayment. The Borrower may prepay any amount owed on this Loan without penalty on any business day upon 30 days prior written notice. Any prepayment made hereunder will be applied in accordance with ARTICLE 2(F)(4).

(2) Refinancing of Loan by the Borrower. If the Borrower refinances the portion of the Project financed by this Loan or obtains an additional grant or loan that is intended to finance the portion of the Project financed by this Loan, it will prepay the portion of the Loan being refinanced by the additional grant or loan. Any mandatory prepayment under this ARTICLE 2(G)(2) will be applied in accordance with ARTICLE 2(F)(4).

(3) Ineligible Uses of the Project. If the Borrower uses the Project for uses that are other than those described in ARTICLE 1(F) ("ineligible uses"), the Borrower shall, upon demand by DEQ, prepay an amount equal to the Outstanding Loan Amount multiplied by the percentage (as determined by DEQ) of ineligible use of the Project. Such prepayment shall be applied against the most remotely maturing principal installments and shall not postpone the due date of any payment(s) hereunder.

(H) LATE PAYMENT FEE. The Borrower agrees to pay immediately upon DEQ's demand a late fee equal to five percent (5%) of any payment (including any loan fee) that is not received by DEQ on or before the tenth (10^{th}) calendar day after such payment is due hereunder.

(I) TERMINATION OF LOAN AGREEMENT. Upon performance by the Borrower of all of its obligations under this Loan Agreement, including payment in full of the Final Loan Amount, all accrued interest and all fees, charges and other amounts due hereunder, this Loan Agreement will

terminate, and DEQ will release its interest in any collateral given as security under this Loan Agreement.

ARTICLE 3: GENERAL REPRESENTATIONS, WARRANTIES AND COVENANTS

(A) REPRESENTATIONS AND WARRANTIES OF THE BORROWER. The Borrower represents and warrants to DEQ that:

(1) It is a duly formed and existing public agency (as defined in ORS 468.423(4)) and has full power and authority to enter into this Loan Agreement.

(2) This Agreement has been duly authorized and executed and delivered by an authorized officer of the Borrower and constitutes the legal, valid and binding obligation of the Borrower enforceable in accordance with its terms.

(3) All acts, conditions and things required to exist, happen and be performed precedent to and in the issuance of this Agreement have existed, have happened, and have been performed in due time, form and manner as required by law.

(4) Neither the execution of this Loan Agreement, the consummation of the transactions contemplated hereby, nor the fulfillment of or compliance with any of the terms and conditions of this Loan Agreement will violate any provision of law, or any order of any court or other agency of government, or any agreement or other instrument to which the Borrower is now a party or by which the Borrower or any of its properties or assets is bound. Nor will this Loan Agreement be in conflict with, result in a breach of, or constitute a default under, any such agreement or other instrument, or, except as provided hereunder, result in the creation or imposition of any lien, charge or encumbrance of any nature whatsoever upon any of the property or assets of the Borrower.

(5) This Loan Agreement does not create any unconstitutional indebtedness. The Loan Amount together with all of the Borrower's other obligations does not, and will not, exceed any limits prescribed by the Constitution, any of the statutes of the State of Oregon, the Borrower's charter, or any other authority.

(6) The Project is a project which the Borrower may undertake pursuant to Oregon law and for which the Borrower is authorized by law to borrow money.

(7) The Borrower has full legal right and authority and all necessary licenses and permits required as of the date hereof to own, operate and maintain the Facility and the Project, other than licenses and permits relating to the Facility or the Project which the Borrower expects to and shall receive in the ordinary course of business, to carry on its activities relating thereto, to execute and deliver this Agreement, to undertake and complete the Project, and to carry out and consummate all transactions contemplated by this Agreement.

(8) The information contained herein which was provided by the Borrower is true and accurate in all respects, and there is no material adverse information relating to

the Project or the Loan, known to the Borrower, that has not been disclosed in writing to DEQ.

(9) No litigation exists or has been threatened that would cast doubt on the enforceability of the Borrower's obligations under this Loan Agreement.

(10) The estimated Completion Date of the Project is August 31, 2028. The Borrower agrees to complete the Project by the estimated Completion Date.

(11) The estimated total Costs of the Project are **$**31,000,000

(12) The Borrower is in compliance with all laws, ordinances, and governmental rules and regulations to which it is subject, the failure to comply with which would materially adversely affect the ability of the Borrower to conduct its activities or undertake or complete the Project or the condition (financial or otherwise) of the Borrower or the Project.

(B) CONTINUING REPRESENTATIONS OF THE BORROWER. The representations of the Borrower contained herein shall be true on the closing date for the Loan and at all times during the term of this Agreement.

(C) REPRESENTATIONS AND WARRANTIES OF DEQ. DEQ represents and warrants that the Director has power under ORS Chapter 468 and OAR Chapter 340, Division 54, to enter into the transactions contemplated by this Loan Agreement and to carry out DEQ's obligations thereunder and that the Director is authorized to execute and deliver this Loan Agreement and to make the Loan as contemplated hereby.

ARTICLE 4: CONDITIONS TO LOAN

(A) CONDITIONS TO CLOSING. DEQ's obligations hereunder are subject to the condition that on or prior to December 31, 2025, the Borrower will duly execute and deliver to DEQ the following items, each in form and substance satisfactory to DEQ and its counsel:

(1) this Agreement duly executed and delivered by an authorized officer of the Borrower;

(2) a copy of the ordinance, order or resolution of the governing body of the Borrower authorizing the execution and delivery of this Agreement, certified by an authorized officer of the Borrower;

(3) Certification Regarding Lobbying, substantially in the form of APPENDIX G, duly executed and delivered by an authorized officer of the Borrower;

(4) an opinion of the legal counsel to the Borrower to the effect that:

(a) The Borrower has the power and authority to execute and deliver and perform its obligations under this Loan Agreement;

(b) This Loan Agreement has been duly executed and acknowledged where necessary by the Borrower's authorized representative(s), all required

approvals have been obtained, and all other necessary actions have been taken, so that this Loan Agreement is valid, binding, and enforceable against the Borrower in accordance with its terms, except as such enforcement is affected by bankruptcy, insolvency, moratorium, or other laws affecting creditors rights generally;

(c) To such counsel's knowledge, this Loan Agreement does not violate any other agreement, statute, court order, or law to which the Borrower is a party or by which it or any of its property or assets is bound; and

(d) RESERVED; and

(5) such other documents, certificates, opinions and information as DEQ or its counsel may reasonably require.

(B) CONDITIONS TO DISBURSEMENTS. Notwithstanding anything in this Agreement to the contrary, DEQ shall have no obligation to make any disbursement to the Borrower under this Agreement unless:

(1) No Event of Default and no event, omission or failure of a condition which would constitute an Event of Default after notice or lapse of time or both has occurred and is continuing;

(2) All of the Borrower's representations and warranties in this Agreement are true and correct on the date of disbursement with the same effect as if made on such date; and

(3) The Borrower submits a disbursement request to DEQ that complies with the requirements of ARTICLE 2(C);

provided, however, DEQ shall be under no obligation to make any disbursement if:

(a) DEQ determines, in the reasonable exercise of its administrative discretion, there is insufficient money available in the CWSRF for the Project; or

(b) there has been a change in any applicable state or federal law, statute, rule or regulation so that the Project is no longer eligible for the Loan.

ARTICLE 5: COVENANTS OF BORROWER

(A) GENERAL COVENANTS OF THE BORROWER. Until the Loan is paid in full, the Borrower covenants with DEQ that:

(1) The Borrower shall use the Loan funds only for payment or reimbursement of the Costs of the Project in accordance with this Loan Agreement. The Borrower acknowledges and agrees that the Costs of the Project do NOT include any Lobbying costs or expenses incurred by Borrower or any person on behalf of Borrower and that Borrower will not request payment or reimbursement for Lobbying costs and expenses.

(2) If the Loan proceeds are insufficient to pay for the Costs of the Project in full, the Borrower shall pay from its own funds and without any right of reimbursement from DEQ all such Costs of the Project in excess of the Loan proceeds.

(3) The Borrower is and will be the owner of the Facility and the Project and shall defend them against the claims and demands of all other persons at any time claiming the same or any interest therein.

(4) The Borrower shall not sell, lease, transfer, or encumber or enter into any management agreement or special use agreement with respect to the Facility or any financial or fixed asset of the utility system that produces the Net Revenues without DEQ's prior written approval, which approval may be withheld for any reason. Upon sale, transfer or encumbrance of the Facility or the Project, in whole or in part, to a private person or entity, this Loan shall be immediately due and payable in full.

(5) Concurrent with the execution and delivery of this Loan Agreement, or as soon thereafter as practicable, the Borrower shall take all steps necessary to cause the Project to be completed in a timely manner in accordance with all applicable DEQ requirements.

(6) The Borrower shall take no action that would adversely affect the eligibility of the Project as a CWSRF project or cause a violation of any Loan covenant in this Agreement.

(7) The Borrower shall undertake the Project, request disbursements under this Loan Agreement, and use the Loan proceeds in full compliance with all applicable laws and regulations of the State of Oregon, including but not limited to ORS Chapter 468 and Oregon Administrative Rules Sections 340-054-0005 to 340-054-0065, as they may be amended from time to time, and all applicable federal authorities and laws and regulations of the United States, including but not limited to Title VI of the Clean Water Act as amended by the Water Quality Act of 1987, Public Law 100-4, the federal cross-cutters listed at APPENDIX D, the equal employment opportunity provisions in APPENDIX F, and the regulations of the U.S. Environmental Protection Agency, all as they may be amended from time to time.

(8) The Borrower shall keep the Facility in good repair and working order at all times and operate the Facility in an efficient and economical manner. The Borrower shall provide the necessary resources for adequate operation, maintenance and replacement of the Project and retain sufficient personnel to operate the Facility.

(9) Interest paid on this Loan Agreement is *not* excludable from gross income under Section 103(a) of the Internal Revenue Code of 1986, as amended (the "Code"). However, DEQ may have funded this Loan with the proceeds of State bonds that bear interest that is excludable from gross income under Section 103(a) of the Code. Section 141 of the Code requires that the State not allow the proceeds of the State bonds to be used by private entities (including the federal government) in such a way that the State bonds would become "private activity bonds" as defined in Section 141 of the Code. To protect the State bonds the Borrower agrees that it shall not use the Loan proceeds or lease, transfer or otherwise permit the use of the Project by any private person or entity in any way that that would cause this Loan Agreement or the State bonds to be treated as "private activity bonds" under Section 141 of the Code and the regulations promulgated under that Section of the Code.

(B) RESERVED

(C) LOAN RESERVE REQUIREMENT; LOAN RESERVE ACCOUNT.

(1) Loan Reserve Requirement. The Loan reserve requirement equals one-half of the average annual debt service based on the final Payment Schedule. Until the Final Loan Amount is calculated, the Loan reserve requirement is $6,259. The Borrower shall deposit the Loan reserve requirement amount into the Loan Reserve Account no later than the date the first payment is due hereunder.

(2) Loan Reserve Account. The Borrower shall create a segregated Loan Reserve Account that shall be held in trust for the benefit of DEQ. The Borrower hereby grants DEQ a security interest in and irrevocably pledges amounts in the Loan Reserve Account to pay the amounts due under this Loan Agreement. The funds in Loan Reserve Account so pledged and hereafter received by the Borrower shall immediately be subject to the lien of such pledge without physical delivery or further act, and the lien of the pledge shall be superior to all other claims and liens whatsoever, to the fullest extent permitted by ORS 287A.310. The Borrower represents and warrants that the pledge of the Loan Reserve Account hereby made by the Borrower complies with, and shall be valid and binding from the date of this Agreement pursuant to, ORS 287A.310. The Borrower shall use the funds in the Loan Reserve Account solely to pay amounts due hereunder until the principal, interest, fees, and any other amounts due hereunder have been fully paid.

(3) Additional Deposits. If the balance in the Loan Reserve Account falls below the Loan reserve requirement, the Borrower shall promptly deposit from the first Net Revenues available after payment of the amounts due hereunder (unless the Borrower has previously made such deposit from other money of the Borrower) an amount sufficient to restore the balance up to the Loan reserve requirement.

(D) INSURANCE. At its own expense, the Borrower shall, during the term of this Agreement, procure and maintain insurance coverage (including, but not limited to, hazard, flood and general liability insurance) adequate to protect DEQ's interest and in such amounts and against such risks as are usually insurable in connection with similar projects and as is usually carried by entities operating similar facilities. The insurance shall be with an entity which is acceptable to DEQ. The Borrower shall provide evidence of such insurance to DEQ. Self-insurance maintained pursuant to a recognized municipal program of self-insurance will satisfy this requirement.

(E) ***INDEMNIFICATION.*** *The Borrower shall, to the extent permitted by law and the Oregon Constitution, indemnify, save and hold the State, its officers, agents and employees harmless from and (subject to ORS Chapter 180) defend each of them against any and all claims, suits, actions, losses, damages, liabilities, cost and expenses of any nature whatsoever resulting from, arising out of or relating to the acts or omissions of the Borrower or its officers, employees, subcontractors or agents in regard to this Agreement or the Project.*

(F) THE BORROWER'S FINANCIAL RECORDS; FINANCIAL REPORTING REQUIREMENTS.

(1) Financial Records. The Borrower shall keep proper and complete books of record and account and maintain all fiscal records related to this Agreement, the Project, and the Facility in accordance with generally accepted accounting principles, generally accepted government accounting standards, the requirements of the Governmental Accounting Standards Board, and state minimum standards for audits of municipal corporations. The Borrower must maintain separate Project accounts in accordance with generally accepted government accounting standards promulgated by the Governmental Accounting Standards Board. The Borrower will permit DEQ and the Oregon Secretary of State and their representatives to inspect its properties, and all work done, labor performed and materials furnished in and about the Project, and DEQ, the Oregon Secretary of State and the federal government and their duly authorized representatives shall have access to the Borrower's fiscal records and other books, documents, papers, plans and writings that are pertinent to this Agreement to perform examinations and audits and make excerpts and transcripts and take copies.

(2) Record Retention Period. The Borrower shall retain and keep accessible files and records relating to the Project for at least six (6) years (or such longer period as may be required by applicable law) after Project completion as determined by DEQ and financial files and records until all amounts due under this Loan Agreement are fully repaid, or until the conclusion of any audit, controversy, or litigation arising out of or related to this Agreement, whichever date is later.

(3) Accounting for Costs of the Project. Borrower shall provide to DEQ, as soon as possible, but in no event later than six (6) months following the Project Completion Date, a full and complete accounting of the Costs of the Project, including but not limited to documentation to support each cost element and a summary of the Costs of the Project and the sources of funding.

(4) Single Audit Requirements. The CWSRF Program receives capitalization grants through the Catalog of Federal Domestic Assistance ("CFDA") No. 66.458: Capitalization Grants for State Revolving Funds and is subject to the regulations of the U.S. Environmental Protection Agency ("EPA"). Borrower is a sub-recipient.

(a) Subrecipients expending federal funds in excess of $1,000,000 in the subrecipient's fiscal year are subject to audit conducted in accordance with the provisions of 2 CFR part 200, subpart F. The Borrower, if subject to this requirement, shall at its own expense submit to DEQ a copy of, or electronic link to, its annual audit subject to this requirement covering the funds expended under this Agreement and shall submit or cause to be submitted to DEQ the annual audit of any subrecipient(s), contractor(s), or subcontractor(s) of the Borrower responsible for the financial management of funds received under this Agreement.

(b) Audit costs for audits not required in accordance with 2 CFR part 200, subpart F are unallowable. If the Borrower did not expend $1,000,000 or more in Federal funds in its fiscal year, but contracted with a certified public accountant to perform an audit, costs for performance of that audit shall not be charged to the funds received under this Agreement.

(c) The Borrower shall save, protect and hold harmless DEQ from the cost of any audits or special investigations performed by the Federal awarding agency or any federal agency with respect to the funds expended under this Agreement. The Borrower acknowledges and agrees that any audit costs incurred by the Borrower as a result of allegations of fraud, waste or abuse are ineligible for reimbursement under this or any other agreement between the Borrower and the State of Oregon.

(G) DBE GOOD FAITH EFFORT. The Borrower and its prime contractor(s) must comply with the Six Good Faith Efforts provided in 40 C.F.R. § 33.301 (set forth in APPENDIX C) and the recordkeeping requirements provided in 40 C.F.R. § 33.501. Borrower must submit documentation of Borrower and prime contractor(s)'s compliance with 40 C.F.R. §§ 33.301 and 33.501 to DEQ upon request.

Pursuant to 40 CFR part 33, Appendix A, the Borrower agrees to include, in its contract(s) with its prime contractor(s), the following language, which must not be altered in any way:

"The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies."

The Borrower also agrees to include in its contract(s) with its prime contractor(s), and shall cause each contract awarded by its prime contractor(s) to include, all applicable requirements of 40 CFR § 33.302 (the exact language may vary), including:

(1) A prime contractor must pay its subcontractor(s) no more than 30 days from the prime contractor's receipt of payment from the Borrower.

(2) The contractor must employ the Six Good Faith Efforts as described in 40 C.F.R. § 33.301 for soliciting and replacing subcontractors; and provide documentation of these efforts to the Borrower.

(H) CONTRACT LANGUAGE. The Borrower shall include in all contracts (unless exempt) with its prime contractor(s) the language set forth in APPENDIX F. Further, the Borrower agrees to fully comply with Subpart C of 2 C.F.R. 180 and Subpart C of 2 C.F.R. 1532 regarding debarment and suspension and agrees to include or cause to be included in any contract at any tier the requirement that a contractor comply with Subpart C of 2 C.F.R. 180 and Subpart C of 2 C.F.R. 1532 if the contract is expected to equal or exceed $25,000.

(I) PROJECT ASSURANCES. Nothing in this Loan Agreement prohibits the Borrower from requiring more assurances, guarantees, indemnity or other contractual requirements from any party performing Project work.

ARTICLE 6: REPRESENTATIONS, WARRANTIES, COVENANTS AND CONDITIONS RELATING TO CONSTRUCTION PROJECTS ONLY

(A) THE BORROWER'S REPRESENTATION AND WARRANTY REGARDING COSTS ALREADY INCURRED.

(1) The Borrower represents and warrants to DEQ that, as of the date of this Loan Agreement, the Costs of the Project actually incurred by the Borrower do not exceed -five hundred and one thousand seven hundred and forty six dollars ($501,746.00)-.

(2) The Borrower acknowledges that DEQ is relying upon the Borrower's representation regarding the amount of Costs of the Project incurred by the Borrower for construction prior to the date of this Loan Agreement as set forth in ARTICLE 6(A)(1) above to determine what portion of the Loan qualifies as a "refinancing" under the EPA's Clean Water State Revolving Fund regulations, 40 C.F.R. Part 35, that may be disbursed on a reimbursement basis.

(B) CONDITION TO DISBURSEMENTS. DEQ's obligation to make disbursements hereunder is further conditioned on the following:

(1) The Borrower's plans, specifications and related documents for the Project shall be reviewed and approved by DEQ, as required by OAR Chapter 340, Division 054.

(2) The Borrower has submitted documentation satisfactory to DEQ that the disbursement is for work that complies with plans, specifications, change orders and addenda approved by DEQ, in accordance with OAR Chapter 340, Division 054.

(3) The Borrower has submitted a copy of the awarded contract and bid documents (including a tabulation of all bids received) to DEQ for the portion of the Project costs that will be funded with the disbursement.

(C) GENERAL PROVISIONS. The Borrower covenants with DEQ that:

(1) Construction Manual. Unless stated otherwise in this Agreement, the Borrower shall comply with the requirements set forth in the Manual as in effect from time to time. DEQ will provide the Borrower with a copy of the Manual upon request.

(2) Plans and Specifications. The Borrower shall obtain DEQ's review and approval of the Borrower's plans, specifications, and related documents for the Project, as required by OAR Chapter 340, Division 054, prior to any disbursement of Loan proceeds hereunder.

(3) Change Orders. The Borrower shall submit all change orders to DEQ. The Borrower must submit prior to its execution any change order that exceeds $100,000 or will alter Project performance. The Borrower shall not use any Loan proceeds to pay for costs of any change order that DEQ has not approved in writing. This ARTICLE 6(C)(3) shall not prevent the Borrower from using funds other than Loan proceeds to pay for a change

order before DEQ approves it, but the Borrower bears the risk that DEQ will not approve the change order.

(4) Inspections; Reports. The Borrower shall provide inspection reports during the construction of the Project as required by DEQ to ensure that the Project complies with approved plans and specifications. Qualified inspectors shall conduct these inspections under the direction of a registered civil, mechanical or electrical engineer, whichever is appropriate. DEQ or its representative(s) may enter property owned or controlled by the Borrower to conduct interim inspections and require progress reports sufficient to determine compliance with approved plans and specifications and with the Loan Agreement, as appropriate.

(5) Asbestos and Other Hazardous Materials. The Borrower shall ensure that only persons trained and qualified for removal of asbestos or other Hazardous Materials will remove any asbestos or Hazardous Materials, respectively, which may be part of this Project.

(6) Operation and Maintenance Manual. The Borrower shall submit to DEQ a draft Facility operation and maintenance manual before the Project is fifty percent (50%) complete. The Borrower shall submit to DEQ a final Facility operation and maintenance manual that meets DEQ's approval before the Project is ninety percent (90%) complete.

(7) Project Performance Certification. The Borrower shall submit to DEQ draft performance standards before the Project is fifty percent (50%) complete. The Borrower shall submit to DEQ final performance standards that meet DEQ's approval before the Project is ninety percent (90%) complete. The Borrower shall submit to DEQ the following done in accordance with the Manual: (i) no later than 10.5 months after the first day of Operation (as that term is defined in OAR 340-054-0010(26)) ("Initiation of Operation"), a performance evaluation report based on the approved performance standards; (ii) within one year after the Project's Initiation of Operation, Project performance certification statement; and (iii) within two (2) months of submission of such Project performance certification statement, a corrective action plan for any Project deficiencies noted in said statement.

(8) Alterations After Completion. The Borrower shall not materially alter the design or structural character of the Project after completing the Project without DEQ's written approval.

(9) Project Initiation of Operations.

(a) The Borrower shall notify DEQ of the Initiation of Operation no more than thirty (30) days after the actual Project Completion Date.

(b) If the Project is completed, or is completed except for minor items, and the Project is operable, but DEQ has not received a notice of Initiation of Operation from the Borrower, DEQ may assign an Initiation of Operation date.

(D) PROVISION APPLICABLE TO CONTRACTS AND SUBCONTRACTS AWARDED FOR THE PROJECT

(1) Prevailing Wage Requirements

(a) Borrower shall comply with state prevailing wage law as set forth in ORS 279C.800 through 279C.870, and the administrative rules promulgated thereunder (OAR Chapter 839, Division 25) (collectively, state "PWR"). This includes but is not limited to imposing an obligation that when PWR applies to the Project, contractors and subcontractors on the Project must pay the prevailing rate of wage for workers in each trade or occupation in each locality as determined by the Commissioner of the Bureau of Labor and Industries ("BOLI") under ORS 279C.815.

(b) When the federal Davis-Bacon Act applies to the Project, contractors and subcontractors on the Project must pay the prevailing rate of wage as determined by the United States Secretary of Labor under the Davis-Bacon Act (40 U.S.C. 3141 *et seq*.). The Borrower agrees that it will insert into any contract in excess of $2,000 for construction, and will cause its subcontractors to insert in any sub-contract in excess of $2,000 for construction, the Davis-Bacon language set forth in Part 1 of APPENDIX E and Part 2 of APPENDIX E as applicable.

(c) Notwithstanding (a) and (b) above, when both PWR and the federal Davis-Bacon Act apply to the Project, contractors and subcontractors on the Project must pay a rate of wage that meets or exceeds the greater of the rate provided in (a) or (b) above.

(d) When PWR applies, Borrower and its contractors and subcontractors shall not contract with any contractor on BOLI's current List of Contractors Ineligible to Receive Public Works Contracts.

(e) When PWR applies, Borrower shall be responsible for both providing the notice to the BOLI Commissioner required by ORS 279C.835 and the payment of any prevailing wage fee(s) required under ORS 279C.825 and BOLI's rules, including OAR 839-025-0200 to OAR 839-025-0230. For avoidance of any doubt, Borrower contractually agrees to pay applicable prevailing wage fees for the Project rather than DEQ, the public agency providing Financing Proceeds under this Loan Agreement.

(f) Pursuant to ORS 279C.817, Borrower and any contractors or subcontractors may request that the BOLI Commissioner make a determination about whether the Project is a public works on which payment of the prevailing rate of wage is required under ORS 279C.840 (i.e. whether PWR applies).

These laws, rules, regulations and orders are incorporated by reference in this Contract to the extent required by law.

(2) Retainage. The Borrower shall require a five percent (5%) retainage in all of its contracts related to the Project for an amount greater than One Hundred Thousand Dollars ($100,000).

(E) AMERICAN IRON AND STEEL

The Borrower shall:

(1) Comply with all federal requirements applicable to the Loan (including those imposed by the Consolidated Appropriations Act, 2014, P.L. 113-76 ("CAA"), and related CWSRF Policy Guidelines) which the Borrower understands includes, among other, requirements that all of the iron and steel products used in the Project are to be produced in the United States ("American Iron and Steel Requirement") unless (i) the Borrower has requested and obtained a waiver from the EPA pertaining to the Project or (ii) DEQ has otherwise advised the Borrower in writing that the American Iron and Steel Requirement is not applicable to the Project.

(2) Comply with all record keeping and reporting requirements under the Clean Water Act, 33 U.S.C. 1251 et seq. (1972) ("Clean Water Act"), including any reports required by a Federal agency or DEQ such as performance indicators of program deliverables, information on costs and Project progress. The Borrower understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the Clean Water Act and this Agreement may be a default hereunder that results in a repayment of the Loan in advance of the maturity thereof and/or other remedial actions.

(3) Include in all contracts for the Project the language set forth in APPENDIX H. All contracts and subcontracts of Borrower for the Project must have a provision requiring compliance with the American Iron and Steel Requirement. APPENDIX H is an example provided by the EPA of what could be included in all contracts in projects that use CWSRF funds. Neither the EPA nor DEQ makes any claims regarding the legality of this clause with respect to state or local law.

(4) Requirement. All of the iron and steel products used in the Project must be produced in the United States if the Project is for the construction, alteration, maintenance, or repair of a "treatment works" as defined in the federal Water Pollution Control Act, 33 U.S.C. §1381 et seq.

(5) Definition. "Iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(6) Applicability. As to loan agreements fully executed on or after October 1, 2014, the requirement set forth in ARTICLE 6(E)(1) above does not apply if the engineering plans and specifications for the Project were approved by DEQ prior to June 10, 2014.

(7) Waiver. The requirement set forth in ARTICLE 6(E)(1) above does not apply if: (a) application would be inconsistent with the public interest; (2) iron and steel products that are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or (3) inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than *25* percent. Borrower may apply for a waiver of the requirement set forth in ARTICLE 6(E)(1) above by sending a waiver request directly to EPA with a copy to DEQ or by sending its waiver request to DEQ who will then forward it on to EPA.

ARTICLE 7: DISCLAIMERS BY DEQ; LIMITATION OF DEQ'S LIABILITY

(A) DISCLAIMER OF ANY WARRANTY. DEQ EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THE PROJECT, THE QUALITY OF MATERIALS SUPPLIED TO AND THAT BECOME A PART OF THE PROJECT, THE QUALITY OF THE WORKMANSHIP PERFORMED UPON THE PROJECT, OR THE EXTENT AND STAGE OF COMPLETION OF THE PROJECT. No such warranty or guarantee shall be implied by virtue of any inspection or disbursement made by DEQ. Any inspection done by DEQ shall be for its sole benefit.

(B) DISCLAIMER OF LIABILITY OF DEQ. DEQ EXPRESSLY DISCLAIMS LIABILITY OF ANY KIND OR CHARACTER WHATSOEVER FOR PAYMENT OF LABOR OR MATERIALS OR OTHERWISE IN CONNECTION WITH THE COMPLETION OF THE PROJECT OR CONTRACTS ENTERED INTO BY THE BORROWER WITH THIRD PARTIES FOR THE COMPLETION OF THE PROJECT. All Project costs of labor, materials and construction, including any indirect costs, shall be the responsibility of and shall be paid by the Borrower.

(C) NONLIABILITY OF STATE.

(1) The State and its officers, agents and employees shall not be liable to the Borrower or to any other party for any death, injury, damage, or loss that may result to any person or property by or from any cause whatsoever, arising out of any defects in the plans, design drawings and specifications for the Project, any agreements or documents between the Borrower and third parties related to the Project or any activities related to the Project. DEQ shall not be responsible for verifying cost-effectiveness of the Project, doing cost comparisons or reviewing or monitoring compliance by the Borrower or any other party with state procurement laws and regulations.

(2) The Borrower hereby expressly releases and discharges DEQ, its officers, agents and employees from all liabilities, obligations and claims arising out of the Project work or under the Loan, subject only to exceptions previously agreed upon in writing by the parties.

(3) Any findings by DEQ concerning the Project and any inspections or analyses of the Project by DEQ are for determining eligibility for the Loan and disbursement of Loan

proceeds only. Such findings do not constitute an endorsement of the feasibility of the Project or its components or an assurance of any kind for any other purpose.

(4) Review and approval of Facilities plans, design drawings and specifications or other documents by or for DEQ does not relieve the Borrower of its responsibility to properly plan, design, build and effectively operate and maintain the Facility as required by law, regulations, permits and good management practices.

ARTICLE 8: DEFAULT AND REMEDIES

(A) EVENTS OF DEFAULT. The occurrence of one or more of the following events constitutes an event of default ("Event of Default"), whether occurring voluntarily or involuntarily, by operation of law or pursuant to any order of any court or governmental agency:

(1) The Borrower fails to make any Loan payment within thirty (30) days after the payment is scheduled to be made according to the repayment schedule;

(2) Any representation or warranty made by the Borrower hereunder was untrue in any material respect as of the date it was made;

(3) The Borrower becomes insolvent or admits in writing an inability to pay its debts as they mature or applies for, consents to, or acquiesces in the appointment of a trustee or receiver for the Borrower or a substantial part of its property; or in the absence of such application, consent, or acquiescence, a trustee or receiver is appointed for the Borrower or a substantial part of its property and is not discharged within sixty (60) days; or any bankruptcy, reorganization, debt arrangement or moratorium or any dissolution or liquidation proceeding is instituted by or against the Borrower and, if instituted against the Borrower, is consented to or acquiesced in by the Borrower or is not dismissed within twenty (20) days;

(4) As a result of any changes in the United States Constitution or the Oregon Constitution or as a result of any legislative, judicial, or administrative action, any part of this Loan Agreement becomes void, unenforceable or impossible to perform in accordance with the intent and purposes of the parties hereto or is declared unlawful;

(5) The Borrower defaults in the performance or observance of any covenants or agreements contained in any loan documents between itself and any lender or lenders, and the default remains uncured upon the expiration of any cure period provided by said loan documents; or

(6) A "land use decision" (as that term is defined by ORS 197.015), a LUCS (as that term is defined under Oregon Administrative Rules Chapter 340, Division 18) or any other permit or approval of any kind that is necessary for the Borrower to either complete the Project or operate the Project is denied, revoked, rescinded or otherwise terminated at any time during the Repayment Period identified in Article 1(H) (in each case, a "Permit Revocation"); or

(7) The Borrower fails to cure non-compliance in any material respect with any other covenant, condition, or agreement of the Borrower hereunder, other than as set forth in (1) through (5) above within a period of thirty (30) days after DEQ provides notice of the noncompliance.

(B) REMEDIES. If DEQ determines that an Event of Default has occurred, DEQ may, without further notice:

(1) Declare the Outstanding Loan Amount plus any unpaid accrued interest, fees and any other amounts due hereunder immediately due and payable;

(2) Cease making disbursement of Loan proceeds or make some disbursements of Loan proceeds and withhold or refuse to make other disbursements;

(3) Appoint a receiver, at the Borrower's expense, to operate the Facility that produces the Net Revenues and collect the Gross Revenues;

(4) Set and collect utility rates and charges;

(5) Pay, compromise or settle any liens on the Facility or the Project or pay other sums required to be paid by the Borrower in connection with the Project, at DEQ's discretion, using the Loan proceeds and such additional money as may be required. If DEQ pays any encumbrance, lien, claim, or demand, it shall be subrogated, to the extent of the amount of such payment, to all the rights, powers, privileges, and remedies of the holder of the encumbrance, lien, claim, or demand, as the case may be. Any such subrogation rights shall be additional cumulative security for the amounts due under this Loan Agreement;

(6) Direct the State Treasurer to withhold any amounts otherwise due to the Borrower from the State of Oregon and, to the extent permitted by law, direct that such funds be applied to the amounts due DEQ under this Loan Agreement and be deposited into the CWSRF; and

(7) Pursue any other legal or equitable remedy it may have.

ARTICLE 9: DEFINITIONS

(A) "BORROWER" means the public agency or agencies (as defined in ORS 468.423(4)) shown as the "Borrower" in Article 1(A) of this Agreement.

(B) "COMPLETION DATE" means the date on which the Project is completed. If the Project is a planning project, the Completion Date is the date on which DEQ accepts the planning project. If the Project is a design project, the Completion Date is the date on which the design project is ready for the contractor bid process. If the Project is a construction project, the Completion Date is the date on which the construction project is substantially complete and ready for Initiation of Operation.

(C) "COSTS OF THE PROJECT" means expenditures approved by DEQ that are necessary to complete the Project in compliance with DEQ's requirements and may include but are not limited to the following items:

(1) Cost of labor and materials and all costs the Borrower is required to pay under the terms of any contract for the design, acquisition, construction or installation of the Project;

(2) Engineering fees for the design and construction of the Project.

(3) The costs of surety bonds and insurance of all kinds that may be required or necessary during the course of completion of the Project;

(4) The legal, financing and administrative costs of obtaining the Loan and completing the Project; and

(5) Any other costs approved in writing by DEQ.

(D) "CWSRF PROGRAM" or "CWSRF" means the Clean Water State Revolving Fund and the Clean Water State Revolving Fund Loan Program, a fund and loan program administered by DEQ under ORS 468.423 to 468.440.

(E) "DEQ" means the Oregon Department of Environmental Quality.

(F) "DIRECTOR" means the Director of DEQ or the Director's authorized representative.

(G) "FACILITY" means all property owned or used by the Borrower to provide wastewater collection, treatment and disposal services, of which the Project is a part.

(H) "FINAL LOAN AMOUNT" means the total of all Loan proceeds disbursed to the Borrower under the Loan Agreement, determined on the date on which the Borrower indicates that no further Loan funds will be requested, all eligible expenditures have been reimbursed from the Loan proceeds, or all Loan proceeds have been disbursed hereunder, whichever occurs first.

(I) **"GROSS REVENUES"** means all fees and charges resulting from operation of the Facility and any interest earnings thereon; provided however, Gross Revenues does not include: the proceeds of any grants; the proceeds of any borrowings for capital improvements; the proceeds of any liability insurance; or the proceeds of any casualty insurance which the Borrower intends to and does utilize for repair or replacement of the Facility or a part thereof.

(J) **"HAZARDOUS MATERIALS"** means and includes flammable explosives, radioactive materials, asbestos and substances defined as hazardous materials, hazardous substances or hazardous wastes in the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act (42 U.S.C. Section 9601, et seq.), the Hazardous Materials Transportation Act (49 U.S.C. Section 1801, et seq.) and the Resource Conservation and Recovery Act (42 U.S.C. Section 6901, et seq.), and regulations promulgated thereunder.

(K) **"LOAN"** means the loan made pursuant to this Loan Agreement.

(L) **"LOAN AGREEMENT"** or **"AGREEMENT"** means this loan agreement and its exhibits, appendices, schedules and attachments (which are by this reference incorporated herein), and any amendments thereto.

(M) **"LOAN AMOUNT"** means the maximum amount DEQ agrees to loan the Borrower hereunder.

(N) **"LOAN RESERVE ACCOUNT"** means the account described in ARTICLE 5(c)(2).

(O) **"LOBBYING"** means influencing or attempting to influence a member, officer or employee of a governmental agency or legislature in connection with the awarding of a government contract, the making of a government grant or loan or the entering into of a cooperative agreement with such governmental entity or the extension, continuation, renewal, amendment or modification of any of the above.

(P) **"MANUAL"** means the CWSRF Manual for Construction Projects.

(Q) **"NET REVENUES"** means the Gross Revenues less the Operating Expenses for the Facility.

(R) **"OPERATING EXPENSES"** means all direct and indirect expenses incurred for operation, maintenance and repair of the Facility, including but is not limited to administrative expenses, legal, financial and accounting expenses, insurance premiums, claims (to the extent that monies are not available from insurance proceeds), taxes, engineering expenses relating to operation and maintenance, payments and reserves for pension, retirement, health, hospitalization, and sick leave benefits, and any other similar expenses to be paid to the extent properly and directly attributable to operations of the Facility. Operating expenses include an appropriate amount for reserves for repair and replacement of the Facility based on the expected life of the collection, treatment and disposal facilities.

(S) **"OUTSTANDING LOAN AMOUNT"** means, as of any date, the sum of all disbursements to the Borrower hereunder less the sum of all Loan principal payments received by DEQ.

(T) **"PROJECT"** means the facilities, activities or documents described in ARTICLE 1(E) and (F).

(U) **"REPAYMENT PERIOD"** means the repayment period ending on the date specified in ARTICLE 1(H) which date shall not in any event be later than thirty (30) years after the Completion Date.

(V) **"STATE"** means the State of Oregon.

ARTICLE 10: MISCELLANEOUS

(A) **NOTICES.** All notices, payments, statements, demands, requests or other communications under this Loan Agreement by either party to the other shall be in writing and shall be sufficiently given and served upon the other party if delivered by personal delivery, by certified mail, return receipt requested, or by facsimile transmission, and, if to the Borrower, delivered, addressed or transmitted to the location or number listed in ARTICLE 1(B), and if to DEQ, delivered, addressed or transmitted to:

Clean Water State Revolving Fund Loan Program
Water Quality Division
Department of Environmental Quality
700 NE Multnomah St., #600
Portland, Oregon 97235
Fax (503) 229-6037

or to such other addresses or numbers as the parties may from time to time designate. Any notice or other communication so addressed and mailed shall be deemed to be given five (5) days after mailing. Any notice or other communication delivered by facsimile shall be deemed to be given when receipt of the transmission is generated by the transmitting machine. To be effective against DEQ, such facsimile transmission must be confirmed by telephone notice to DEQ's CWSRF Program Coordinator. Any notice or other communication by personal delivery shall be deemed to be given when actually delivered.

(B) **WAIVERS AND RESERVATION OF RIGHTS.**

(1) DEQ's waiver of any breach by the Borrower of any term, covenant or condition of this Loan Agreement shall not operate as a waiver of any subsequent breach of the same or breach of any other term, covenant, or condition of this Loan Agreement. DEQ may pursue any of its remedies hereunder concurrently or consecutively without being deemed to have waived its right to pursue any other remedy.

(2) Nothing in this Loan Agreement affects DEQ's right to take remedial action, including, but not limited to, administrative enforcement action and action for breach of contract against the Borrower, if the Borrower fails to carry out its obligations under this Loan Agreement.

(C) TIME IS OF THE ESSENCE. The Borrower agrees that time is of the essence under this Loan Agreement.

(D) RELATIONSHIP OF PARTIES. The parties agree and acknowledge that their relationship is that of independent contracting parties, and neither party hereto shall be deemed an agent, partner, joint venturer or related entity of the other by reason of this Loan Agreement.

(E) NO THIRD PARTY BENEFICIARIES. DEQ and the Borrower are the only parties to this Loan Agreement and are the only parties entitled to enforce the terms of this Loan Agreement. Nothing in this Loan Agreement gives, is intended to give, or shall be construed to give or provide any benefit or right not held by or made generally available to the public, whether directly, indirectly or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Loan Agreement. Any inspections, audits, reports or other assurances done or obtained, or approvals or consents given, by DEQ are for its benefit only for the purposes of administering this Loan and the CWSRF Program.

(F) ASSIGNMENT. DEQ shall have the right to transfer the Loan or any part thereof, or assign any or all of its rights under this Loan Agreement, at any time after execution of this Loan Agreement upon written notice to the Borrower. Provisions of this Loan Agreement shall inure to the benefit of DEQ's successors and assigns. This Loan Agreement or any interest therein may be assigned or transferred by the Borrower only with DEQ's prior written approval (which consent may be withheld for any reason), and any assignment or transfer by the Borrower in contravention of this ARTICLE 10(F) shall be null and void.

(G) DEQ NOT REQUIRED TO ACT. Nothing contained in this Loan Agreement requires DEQ to incur any expense or to take any action hereunder in regards to the Project.

(H) FURTHER ASSURANCES. The Borrower and DEQ agree to execute and deliver any written instruments necessary to carry out any agreement, term, condition or assurance in this Loan Agreement whenever a party makes a reasonable request to the other party for such instruments.

(I) VALIDITY AND SEVERABILITY; SURVIVAL. If any part, term, or provision of this Loan Agreement or of any other Loan document shall be held by a court of competent jurisdiction to be void, voidable, or unenforceable by either party, the validity of the remaining portions, terms and provisions shall not be affected, and all such remaining portions, terms and provisions shall remain in full force and effect. Any provision of this Agreement which by its nature or terms is intended to survive termination, including but not limited to ARTICLE 5(E), shall survive termination of this Agreement.

(J) NO CONSTRUCTION AGAINST DRAFTER. Both parties acknowledge that they are each represented by and have sought the advice of counsel in connection with this Loan Agreement and the transactions contemplated hereby and have read and understand the terms of this Loan Agreement. The terms of this Loan Agreement shall not be construed against either party as the drafter hereof.

(K) HEADINGS. All headings contained herein are for convenience of reference only and are not intended to define or limit the scope of any provision of this Loan Agreement.

(L) ATTORNEYS' FEES AND EXPENSES. In any action or suit to enforce any right or remedy under this Agreement, the prevailing party shall be entitled to recover its reasonable attorneys' fees and costs, to the extent permitted by law.

(M) CHOICE OF LAW; DESIGNATION OF FORUM; FEDERAL FORUM.

(1) The laws of the State of Oregon (without giving effect to its conflicts of law principles) govern all matters arising out of or relating to this Agreement, including, without limitation, its validity, interpretation, construction, performance, and enforcement.

(2) Any party bringing a legal action or proceeding against any other party arising out of or relating to this Agreement shall bring the legal action or proceeding in the Circuit Court of the State of Oregon for Marion County (unless Oregon law requires that it be brought and conducted in another county). Each party hereby consents to the exclusive jurisdiction of such court, waives any objection to venue, and waives any claim that such forum is an inconvenient forum.

(3) Notwithstanding ARTICLE 10(M)(2), if a claim must be brought in a federal forum, then it must be brought and adjudicated solely and exclusively within the United States District Court for the District of Oregon. This ARTICLE 10(M)(3) applies to a claim brought against the State of Oregon only to the extent Congress has appropriately abrogated the State of Oregon's sovereign immunity and is not consent by the State of Oregon to be sued in federal court. This ARTICLE 10(M)(3) is also not a waiver by the State of Oregon of any form of defense or immunity, including but not limited to sovereign immunity and immunity based on the Eleventh Amendment to the Constitution of the United States.

(N) COUNTERPARTS. This Loan Agreement may be executed in any number of counterparts, each of which is deemed to be an original, but all together constitute but one and the same instrument.

(O) ENTIRE AGREEMENT; AMENDMENTS. This Loan Agreement, including all appendices and attachments that are by this reference incorporated herein, constitutes the entire agreement between the Borrower and DEQ on the subject matter hereof, and it shall be binding on the parties thereto when executed by all the parties and when all approvals required to be obtained by DEQ have been obtained. This Loan Agreement, including all related Loan documents and instruments, may not be amended, changed, modified, or altered without the written consent of the parties.

CITY OF JOHN DAY

By: _____ _____
Authorized Officer Date

Typed Name: _____
Title: _____

STATE OF OREGON ACTING BY AND THROUGH ITS DEPARTMENT OF ENVIRONMENTAL QUALITY

By: _____ _____
Jennifer Wigal, Administrator Date
Water Quality Division

APPENDIX A: *PRELIMINARY* REPAYMENT SCHEDULE

BORROWER:	City of John Day	INTEREST RATE:	2.07%
SRF LOAN NO.:	RC0024	TERM IN YEARS:	30
LOAN AMOUNT:	$ 546,926	PAYMENT AMOUNT:	$ 6,216
		ANNUAL FEE:	0.50%

Due		PAYMENT				Principal
Date	Pmt#	Principal	Interest	Fees	Total	Balance
						273,463
12/1/2027	1	0	8,731	0	8,731	273,463
6/1/2028	2	3,386	2,830	1,367	7,583	270,077
12/1/2028	3	3,421	2,795	0	6,216	266,656
6/1/2029	4	3,456	2,760	1,333	7,549	263,200
12/1/2029	5	3,492	2,724	0	6,216	259,708
6/1/2030	6	3,528	2,688	1,299	7,515	256,180
12/1/2030	7	3,565	2,651	0	6,216	252,615
6/1/2031	8	3,601	2,615	1,263	7,479	249,014
12/1/2031	9	3,639	2,577	0	6,216	245,375
6/1/2032	10	3,676	2,540	1,227	7,443	241,699
12/1/2032	11	3,714	2,502	0	6,216	237,985
6/1/2033	12	3,753	2,463	1,190	7,406	234,232
12/1/2033	13	3,792	2,424	0	6,216	230,440
6/1/2034	14	3,831	2,385	1,152	7,368	226,609
12/1/2034	15	3,871	2,345	0	6,216	222,738
6/1/2035	16	3,911	2,305	1,114	7,330	218,827
12/1/2035	17	3,951	2,265	0	6,216	214,876
6/1/2036	18	3,992	2,224	1,074	7,290	210,884
12/1/2036	19	4,033	2,183	0	6,216	206,851
6/1/2037	20	4,075	2,141	1,034	7,250	202,776
12/1/2037	21	4,117	2,099	0	6,216	198,659
6/1/2038	22	4,160	2,056	993	7,209	194,499
12/1/2038	23	4,203	2,013	0	6,216	190,296
6/1/2039	24	4,246	1,970	951	7,167	186,050
12/1/2039	25	4,290	1,926	0	6,216	181,760
6/1/2040	26	4,335	1,881	909	7,125	177,425
12/1/2040	27	4,380	1,836	0	6,216	173,045
6/1/2041	28	4,425	1,791	865	7,081	168,620
12/1/2041	29	4,471	1,745	0	6,216	164,149
6/1/2042	30	4,517	1,699	821	7,037	159,632
12/1/2042	31	4,564	1,652	0	6,216	155,068
6/1/2043	32	4,611	1,605	775	6,991	150,457
12/1/2043	33	4,659	1,557	0	6,216	145,798
6/1/2044	34	4,707	1,509	729	6,945	141,091
12/1/2044	35	4,756	1,460	0	6,216	136,335
6/1/2045	36	4,805	1,411	682	6,898	131,530
12/1/2045	37	4,855	1,361	0	6,216	126,675
6/1/2046	38	4,905	1,311	633	6,849	121,770
12/1/2046	39	4,956	1,260	0	6,216	116,814
6/1/2047	40	5,007	1,209	584	6,800	111,807
12/1/2047	41	5,059	1,157	0	6,216	106,748
6/1/2048	42	5,111	1,105	534	6,750	101,637
12/1/2048	43	5,164	1,052	0	6,216	96,473
6/1/2049	44	5,218	998	482	6,698	91,255
12/1/2049	45	5,272	944	0	6,216	85,983
6/1/2050	46	5,326	890	430	6,646	80,657
12/1/2050	47	5,381	835	0	6,216	75,276
6/1/2051	48	5,437	779	376	6,592	69,839
12/1/2051	49	5,493	723	0	6,216	64,346
6/1/2052	50	5,550	666	322	6,538	58,796
12/1/2052	51	5,607	609	0	6,216	53,189
6/1/2053	52	5,665	551	266	6,482	47,524
12/1/2053	53	5,724	492	0	6,216	41,800
6/1/2054	54	5,783	433	209	6,425	36,017
12/1/2054	55	5,843	373	0	6,216	30,174
6/1/2055	56	5,904	312	151	6,367	24,270
12/1/2055	57	5,965	251	0	6,216	18,305
6/1/2056	58	6,027	189	92	6,308	12,278
12/1/2056	59	6,089	127	0	6,216	6,189
6/1/2057	60	6,189	64	31	6,284	0
TOTALS		273,463	102,049	22,888	398,400	

REQUIRED LOAN RESERVE: $ 6,259

APPENDIX B: *ESTIMATED* CWSRF LOAN DISBURSEMENT SCHEDULE

Loan funds are expected to be available based on the following Project schedule:

Borrower:		City of John Day					
Loan #:		RC0024					
Int. Rate:		2.07%					
1st Pmt:		12/1/2027					
Disb.	**Paid/**	**Gross Disb.**	**Principal Forg.**	**Net Amount**	**Disb.**	**Total #**	**Interest**
Number	**Estimate**	**Amount**	**Applied**	**Disbursed**	**Date**	**of Days**	**Amount**
1	Estimate	$ 54,693	$ 27,346	$ 27,346	1/1/2026	699	1,084.06
2	Estimate	$ 54,693	$ 27,346	$ 27,346	2/1/2026	668	1,035.98
3	Estimate	$ 54,693	$ 27,346	$ 27,346	3/1/2026	640	992.56
4	Estimate	$ 54,693	$ 27,346	$ 27,346	4/1/2026	609	944.48
5	Estimate	$ 54,693	$ 27,346	$ 27,346	5/1/2026	579	897.96
6	Estimate	$ 54,693	$ 27,346	$ 27,346	6/1/2026	548	849.88
7	Estimate	$ 54,693	$ 27,346	$ 27,346	7/1/2026	518	803.35
8	Estimate	$ 54,693	$ 27,346	$ 27,346	8/1/2026	487	755.27
9	Estimate	$ 54,693	$ 27,346	$ 27,346	9/1/2026	456	707.20
10	Estimate	$ 54,693	$ 27,346	$ 27,346	10/1/2026	426	660.67
TOTAL:		**$ 546,926**	**$ 273,463**	**$ 273,463**			**8,731.41**

APPENDIX C: DBE GOOD FAITH EFFORTS

At a minimum the Borrower or its prime contractor must make good faith efforts whenever procuring construction, equipment, services and supplies by complying with the six steps outlined in 40 CFR Section 33.301. The six steps are:

(a) Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

(b) Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

(c) Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

(d) Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

(e) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.

(f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.
The Borrower shall, and shall cause its contractors to, document compliance with the above requirements on forms found at Tab 6 of the Manual for Construction Projects.

Additional resources available to recipients and contractors include the following:

EPA Office of Small and Disadvantaged Business Utilization:
Phone: 206 – 553 – 2931
Web Site: https://www.epa.gov/aboutepa/about-office-small-and-disadvantaged-business-utilization-osdbu

Oregon Office of Minority, Women and Emerging Small Business
350 Winter Street N.E., Room 300
Salem, OR 97301-3878

Phone: 503 – 947 – 7922
Web Site: https://www.oregon.gov/biz/programs/cobid/mbe-wbe/pages/default.aspx

APPENDIX D: APPLICABLE FEDERAL AUTHORITIES AND LAWS ("CROSS-CUTTERS")

ENVIRONMENTAL LEGISLATION:

Archaeological and Historic Preservation Act of 1974, PL 93-291.
Clean Air Act, 42 U.S.C. 7506(c).
Coastal Barrier Resources Act, 16 U.S.C. 3501, et seq.
Coastal Zone Management Act of 1972, PL 92-583, as amended.
Endangered Species Act 16 U.S.C. 1531, et seq.
Executive Order 11593, Protection and Enhancement of the Cultural Environment.
Executive Order 11988, Floodplain Management.
Executive Order 11990, Protection of Wetlands.
Farmland Protection Policy Act, 7 U.S.C. 4201, et seq.
Fish and Wildlife Coordination Act, PL 85-624, as amended.
National Historic Preservation Act of 1966, PL 89-665,as amended.
Safe Drinking Water Act, Section 1424(e), PL 92-523, as amended.
Wild and Scenic Rivers Act, PL 90-542, as amended.
Federal Water Pollution Control Act Amendments of 1972, PL 92-500.
Migratory Bird Conservation Act, 16 U.S.C. 715, et seq.
Magnuson-Stevens Act – Essential Fish Habitat, 16 U.S.C. 1851, et seq.

ECONOMIC LEGISLATION:

Demonstration Cities and Metropolitan Development Act of 1966, PL 89-754, as amended.
Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, including
Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants or Loans.

SOCIAL LEGISLATION:

The Age Discrimination Act of 1975, Pub. L. No. 94-135, 89 Stat. 713, 42 U.S.C. §6102 (1994).
Civil Rights Act of 1964, Pub. L. No. 88-352, 78 Stat. 252, 42 U.S.C. §2000d (1988).
Section 13 of PL 92-500; Prohibition against Sex Discrimination under the Federal Water Pollution Control Act.
Rehabilitation Act of 1973, Pub. L. No. 93-1123, 87 Stat. 355, 29 U.S.C. §794 (1988), including Executive Orders 11914 and 11250).
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MISCELLANEOUS AUTHORITY:

Uniform Relocation and Real Property Acquisition Policies Act of 1970, PL 92-646.
Executive Order 12549 and 40 CFR Part 32, Debarment and Suspension.
Disclosure of Lobbying Activities, Section 1352, Title 31, U.S. Code.

APPENDIX E: DAVIS-BACON PROVISION

Part 1

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required

by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at https://www.dol.gov/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA , the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be

greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

Part 2

Contract Provision for Contracts in Excess of $100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient upon the request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (a)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve

them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Oregon Department of Environmental Quality and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at https://www.dol.gov/whd/local/.

APPENDIX F

EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this contract the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The contractor will comply with all applicable requirements of the Civil Rights Act of 1964, as amended, including without limitation all applicable provisions and requirements of Title VI and Title VII. The contractor will ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin and that the contractor's employment actions do not have a disproportionate, adverse effect on a protected group in violation of Title VII. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, such notices as may be required by the Equal Employment Opportunity Commission setting forth the rights of employees and/or applicants.

(2) The contractor will ensure in its hiring that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin and may include a statement to that effect in the solicitations or advertisements for employees placed by or on behalf of the contractor.

(3) The contractor will comply with all applicable provisions of the Civil Rights Act of 1964, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor, United States Department of Justice, and the Equal Employment Opportunity Commission, to the extent applicable.

(4) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part, and such other sanctions may be imposed and remedies invoked by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

APPENDIX G: CERTIFICATION REGARDING LOBBYING
(Contracts in Excess of $100,000.00)

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the Borrower, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signed _____

Title _____

Date _____

Recipient _____

APPENDIX H: AMERICAN IRON AND STEEL ("AIS") REQUIREMENT

The Contractor acknowledges to and for the benefit of City of John Day ("Purchaser") and the State of Oregon, acting by and through the Department of Environmental Quality Clean Water State Revolving Fund (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

CITY OF
JOHN DAY

RESOLUTION NO. 25-11

A RESOLUTION OF THE CITY OF JOHN DAY ADOPTING CERTAIN WATER AND SEWER SERVICE FEES EFFECTIVE THE FIRST BILLING OF JANUARY 2026.

WHEREAS, City of John Day ("City") conducted a 5 year rate study in 2024 in anticipation of construction of a new wastewater plant.

WHEREAS, City of John Day ("City") has established certain fees and charges (individually and collectively, the "Fee(s)") related to or concerning its provision of water and sewer service within and outside City's incorporated limits; and

WHEREAS, based on a careful review and evaluation of City's current Fees, City staff has determined it necessary to increase the Fees and/or assess additional Fees to recover (or attempt to recover) certain costs and expenses incurred by City in connection with its provision of water and sewer services to its customers; and

WHEREAS, the City is required to construct a new Wastewater facility; and

WHEREAS, Title 7, Chapter 5-9 A of the City's Municipal Code (the "Code") provides that City must set monthly sewer service charges by resolution; and

WHEREAS, Title 7, Chapter 4-6 A of the Code provides that City must set water base rate charges by resolution; and

WHEREAS, by adoption of this Resolution 25-11 (this "Resolution"), the City Council (the "Council") adjusts and/or establishes the Fees.

NOW, THEREFORE, BE IT RESOLVED, by and through the Council meeting in regular session, the following:

1. Findings. The above-stated findings are hereby adopted.

2. Fee Schedule. The Council hereby establishes and adopts the water and sewer service-related fees and charges identified in attachments A and B ("Fee Schedules"). The fees and charges identified in the Fee Schedule are effective the first billing of January 2026. The fees and charges identified in the Fee Schedule representing water and sewer rates amend, replace, and supersede in all respects the fee and charge amounts previously established by City pursuant by Resolution.

3. Adjustments. Except as expressly provided otherwise by City ordinance, the Council may, from time to time, establish and/or adjust its water and/or sewer service fees, rates, and charges by resolution, including, without limitation, the Fee Schedule.

4. Miscellaneous. This Resolution (and the provisions contained herein) amend, replace, and supersede any resolution or order (or portion thereof) in conflict with this Resolution. The provisions of this Resolution are severable. If any section, subsection, sentence, clause and/or portion of this Resolution is for any reason held invalid, unenforceable, and/or unconstitutional, such invalid, unenforceable, and/or unconstitutional section, subsection, sentence, clause, and/or portion will (a) yield to construction permitting enforcement to the maximum extent permitted by applicable law, and (b) not affect the validity enforceability, and/or constitutionality of the remaining portion of this Resolution. The Council determines that the fees imposed by this Resolution are not taxes subject to the property tax limitations of Article XI, section 11 of the Oregon Constitution. This Resolution may be corrected by order of the Council to cure editorial and/or clerical errors. This Resolution will be in full force and effect from and after its passage and adoption.

APPROVED, ADOPTED, AND MADE EFFECTIVE by the City of John Day City Council this 18 day of November, 2025 by a vote of _____.

_____
Sherry Rininger, Mayor

ATTEST:

_____
Melissa Bethel, City Manger

CITY OF JOHN DAY

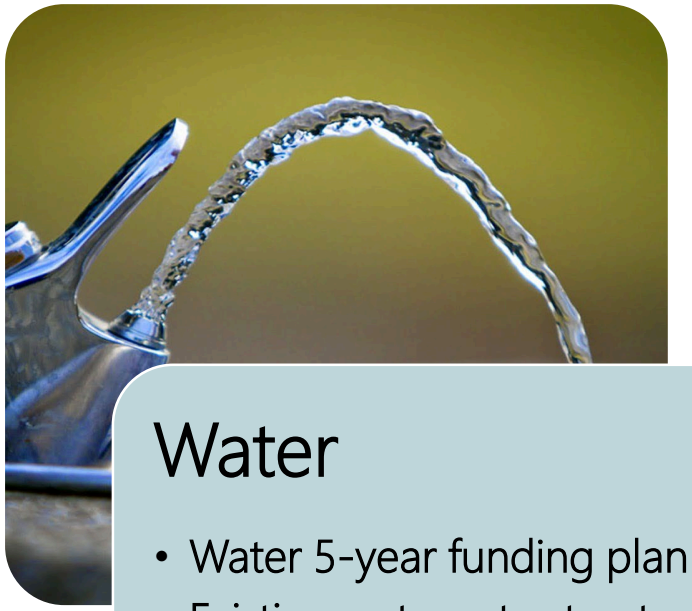
City Council

Utilities Rates Forecast Presentation

November 26, 2024

DONOVAN enterprises, inc.

TONIGHT'S AGENDA



Water

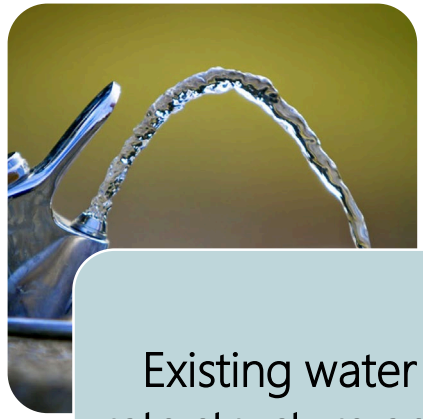
- Water 5-year funding plan
- Existing water rate structure and recommended adjustments
- 5-year single-family rate forecast

Wastewater

- Key planning assumptions
- Funding strategy for the new WWTP
- Annual changes in WW revenue requirements
- 5-year single-family rate forecast

Water 5-year funding plan

- General fund continues to repay the 2018 fire hall loan; $42,992 per year through FY 28
- Assume labor inflation at 3% per year; benefits (health and retirement) at 6% per year
- Assume M&S budget at $308,650 this year; grows at 3% per year; includes operating supplies and distribution system maintenance
- Water capital outlay at $250k this year; drops to $100k per year thereafter; enough to fund well rehabs and small works
- No new water system debt, just servicing existing loans:
  - ✓ 2018 WA Federal refunding loan, $188k per year through FY28
  - ✓ 2021 Biz OR brownfields loan, $32,700 per year through FY41

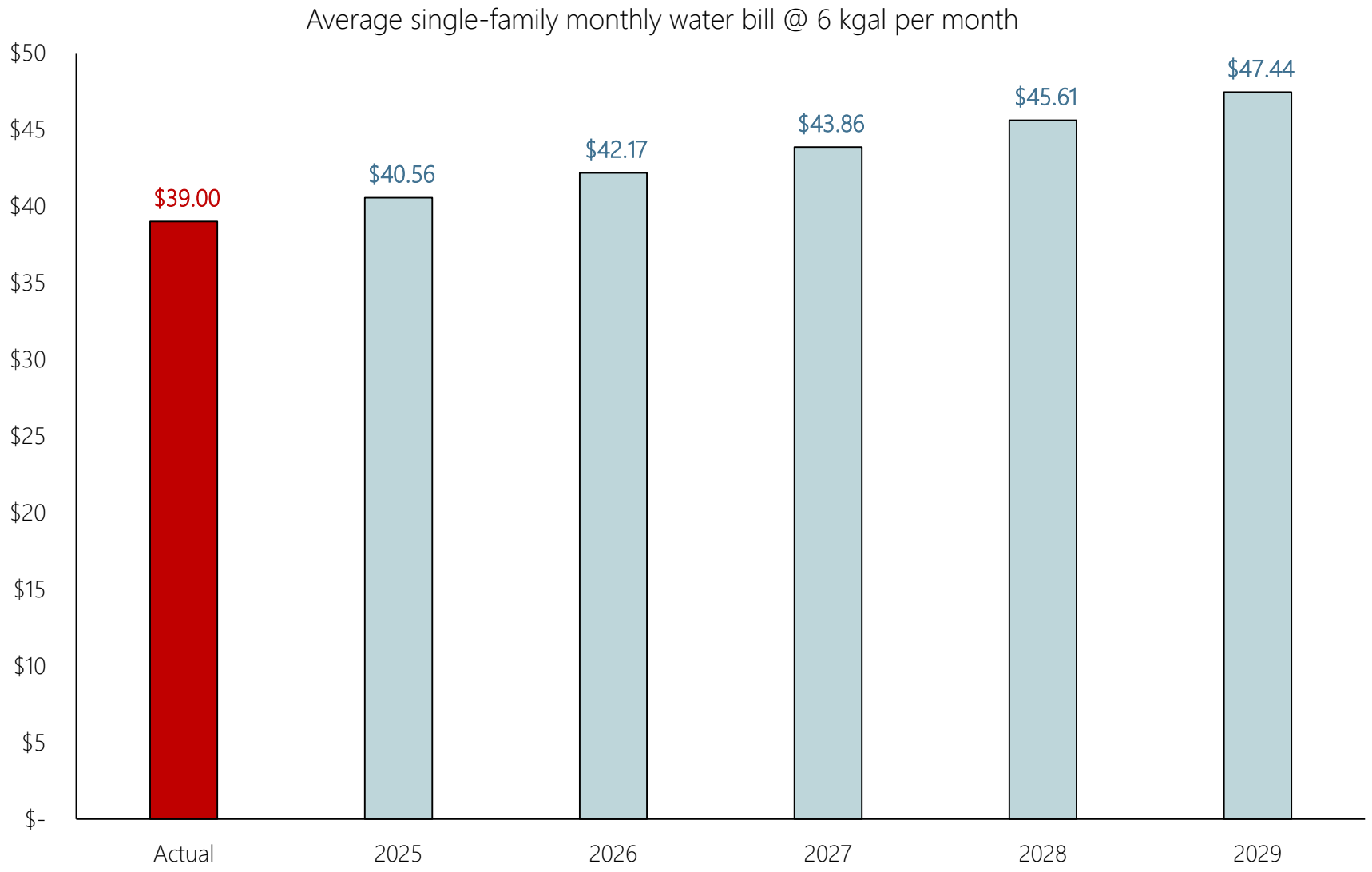


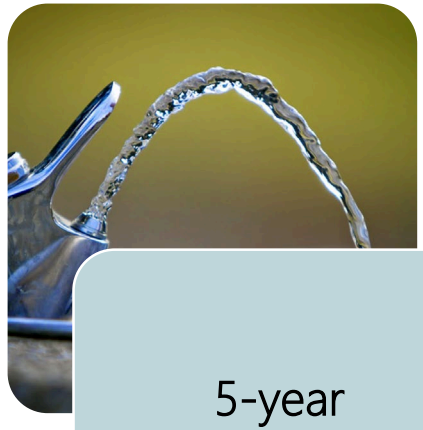
Existing water rate structure and recommended adjustments

- Current water rate structure for metered accounts consists of two components:
  1. A $34 per month base charge per account, commercial space, or multi-family dwelling unit. The first 4,000 gallons of metered water usage is included in the monthly base charge. This is very common in the industry.
  2. A volume charge based on the amount of metered water consumed:
     a) 4,001 gallons to 20,000 gallons $0.0025 per gallon
     b) 20,001 gallons an over $0.0031 per gallon

     In the industry, this is considered conservation pricing and conforms to OHA administrative rule making.
- The City has a rate for "industrial" non-domestic water at $0.001 per gallon. This is below the City's cost of service. Recommend the City charge the full cost recovery rate for this class.
- Outside City customers are charged 200% of the in-city rate for base and volume charges. This is also very common and conforms to industry practice.
- The City also levies a $6 per month per account Community Development fee.

5-year single-family monthly water bill forecast





5-year Forecasted Water Rate Schedule

Water Rate Component	Actual	Effective January 1 2025	2026	2027	2028	2029
Inside City:						
Monthly base rate - $/Account and per Dwelling Unit (includes the first 4,000 gallons per month)	$ 34.00	$ 35.36	$ 36.77	$ 38.24	$ 39.77	$ 41.36
Monthly community development fee - $/Account and Dwelling Unit	$ 6.00	$ 6.24	$ 6.49	$ 6.75	$ 7.02	$ 7.30
Volume charge - $/gallon:						
4,001 to 20,000 gallons	$ 0.00250	$ 0.00260	$ 0.00270	$ 0.00281	$ 0.00292	$ 0.00304
20,001 and over	$ 0.00310	$ 0.00322	$ 0.00335	$ 0.00348	$ 0.00362	$ 0.00376
Outside City:						
Monthly base rate - $/Account and per Dwelling Unit (includes the first 4,000 gallons per month)	$ 68.00	$ 70.72	$ 73.54	$ 76.48	$ 79.54	$ 82.72
Monthly community development fee - $/Account and Dwelling Unit	$ 6.00	$ 6.24	$ 6.49	$ 6.75	$ 7.02	$ 7.30
Volume charge - $/gallon:						
4,001 to 20,000 gallons	$ 0.00500	$ 0.00520	$ 0.00540	$ 0.00562	$ 0.00584	$ 0.00608
20,001 and over	$ 0.00620	$ 0.00644	$ 0.00670	$ 0.00696	$ 0.00724	$ 0.00752
Industrial (Bulk) rate for nondomestic use:						
1 to 20,000 gallons	$ 0.00250	$ 0.00260	$ 0.00270	$ 0.00281	$ 0.00292	$ 0.00304
20,001 and over	$ 0.00310	$ 0.00322	$ 0.00335	$ 0.00348	$ 0.00362	$ 0.00376
Tank and hydrant rate for metered water:						
Administration fee	$ 5.00	$ 5.20	$ 5.41	$ 5.63	$ 5.86	$ 6.09
Volume charge - $/gallon						
1 to 20,000 gallons	$ 0.00250	$ 0.00260	$ 0.00270	$ 0.00281	$ 0.00292	$ 0.00304
20,001 and over	$ 0.00310	$ 0.00322	$ 0.00335	$ 0.00348	$ 0.00362	$ 0.00376

CITY OF JOHN DAY

Wastewater

- Key planning assumptions
- Funding strategy for the new WWTP
- Annual changes in WW revenue requirements
- 5-year single-family rate forecast

KEY WASTEWATER PLANNING ASSUMPTIONS

Current Conditions

- Customer growth flat
- Inflation generally 3%
- Current WW op. cost:
  - Labor $226,789
  - Materials 119,708
  - Transfers 70,000
  - Debt svc. 104,294
    - Total $520,791
- Plan on spending ~$2.0 million on project design this year (from grant proceeds)

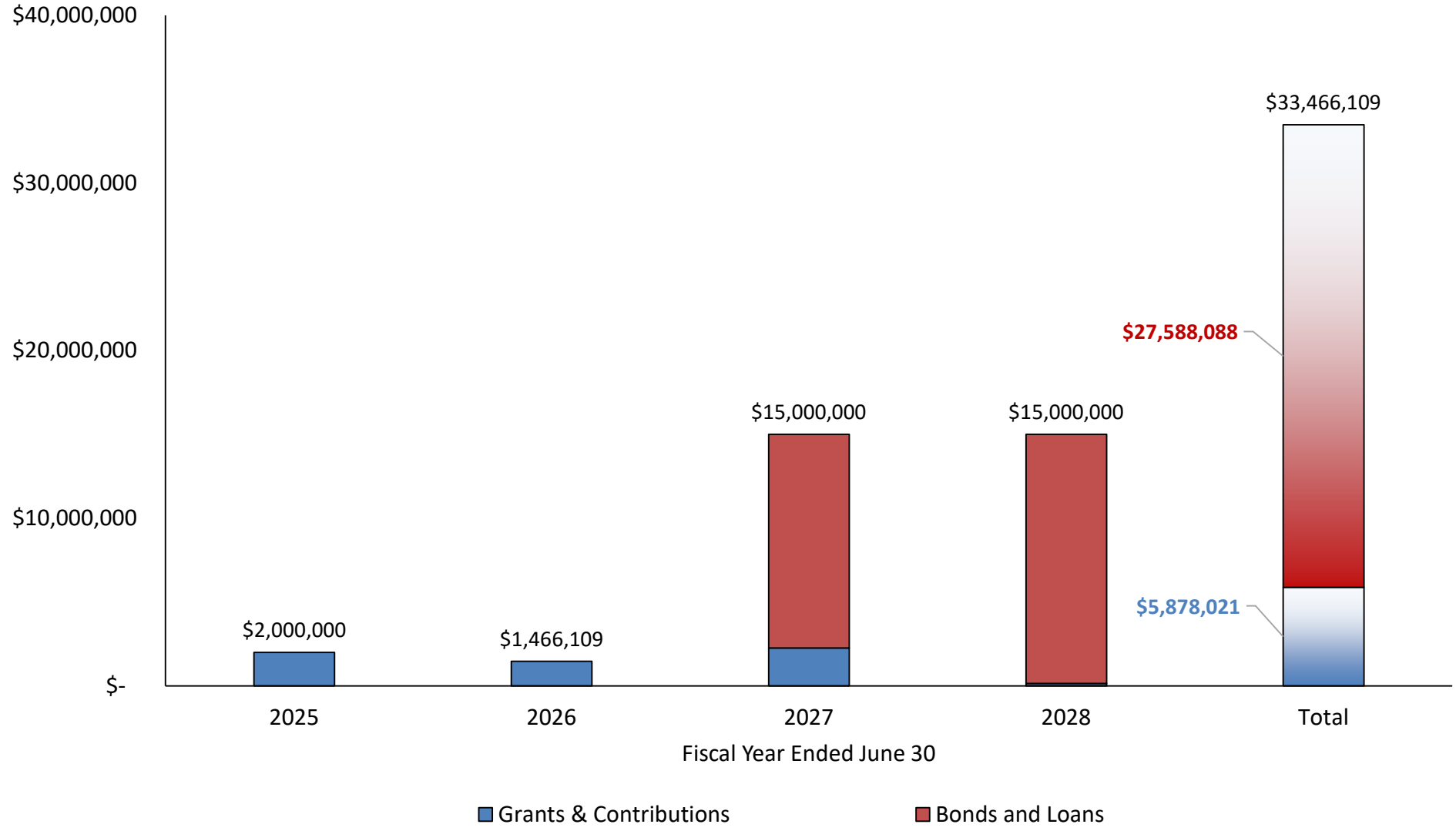
New Long-Term Debt

- Biz Oregon IFA; $1,548,153; 30- year term; 1.0%
- DEQ CWSRF; $24,539,935; 30-year term; 1.55%
- USDA RUS; $1,500,000; 40-year term; 3.0%
- Total new debt at $27,588,088

Commitments

- As of Nov. 24:
  - CDBG $2,064,527
  - Biz OR 663,494
  - CDS 1,000,000
  - DEQ 2,000,000
  - USDA 150,000
    - Total $5,878,021
- CDBG grant must be spent by August 2025
- Future CDS support possible but not in this analysis

FUNDING STRATEGY FOR THE NEW WASTEWATER TREATMENT PLANT



FUNDING STRATEGY FOR THE PROJECT- DETAILS

Project Total

- Gross project cost $33.5 million
- Grant contributions $5.9 million (18% of Pjt. Cost)
- Net amount $27.6 million to be funded from new loans
- Accrued interest during construction $614,295
- Total estimated annual level debt service $1,153,962 per year when the project is completed

Clean Water State Revolving

- Principal amount $24,539,935
- 30-year term 1.55%
- Interest during construction $553,813
- Level debt service $1,029,080 starting in FY 2029
- Administered by DEQ; 0.50% admin. Fee
- Strings attached
  - BABA
  - Prevailing wage

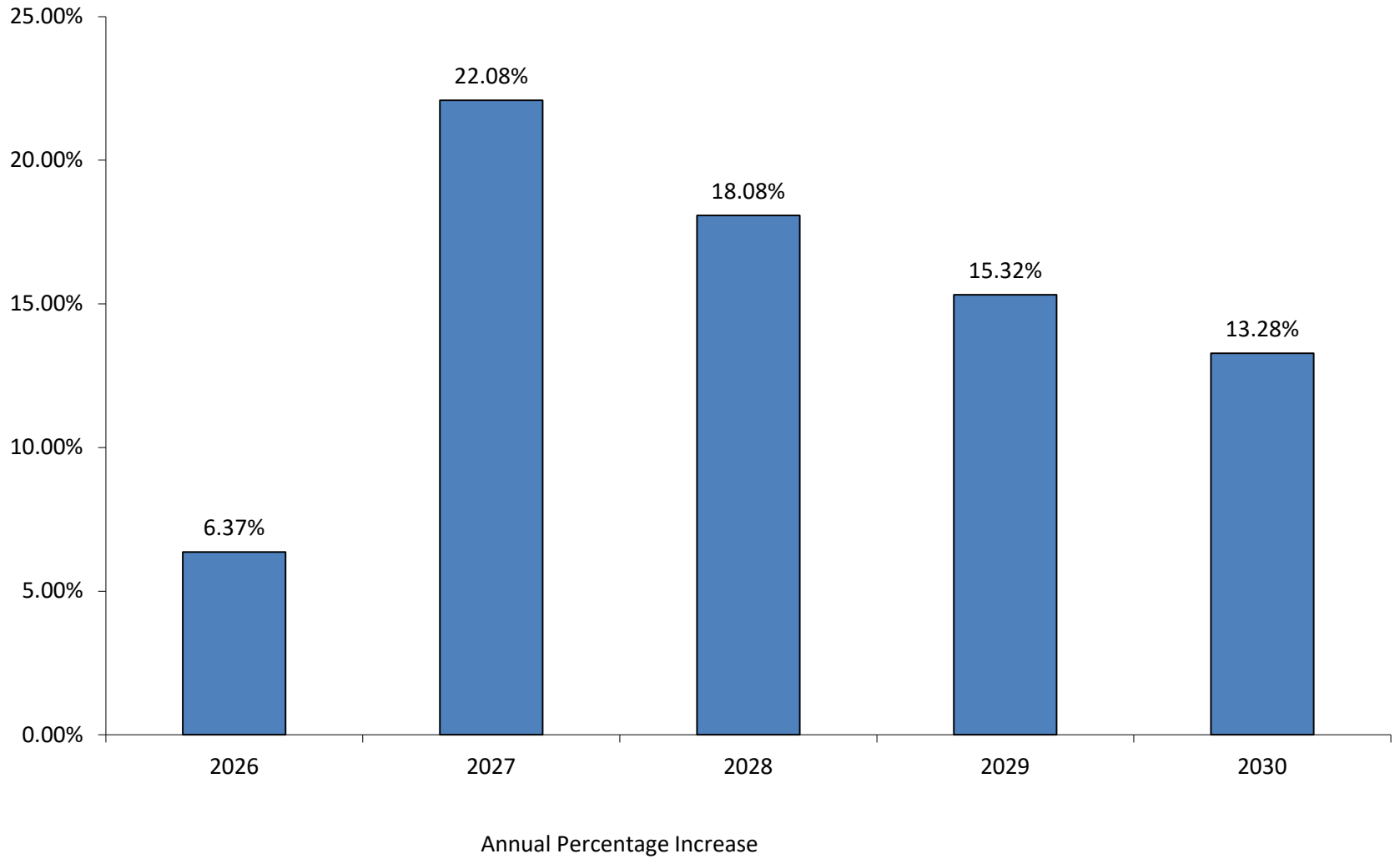
Infrastructure Finance Authority

- Principal amount $1,548,153
- 30-year term 1.00%
- Interest during construction $15,482
- Level debt service $59,988 starting in FY2028
- Administered by the State of Oregon (Oregon Business)
- Strings attached
  - Rate pledge with coverage of 1.2x
  - BABA
  - Prevailing wage

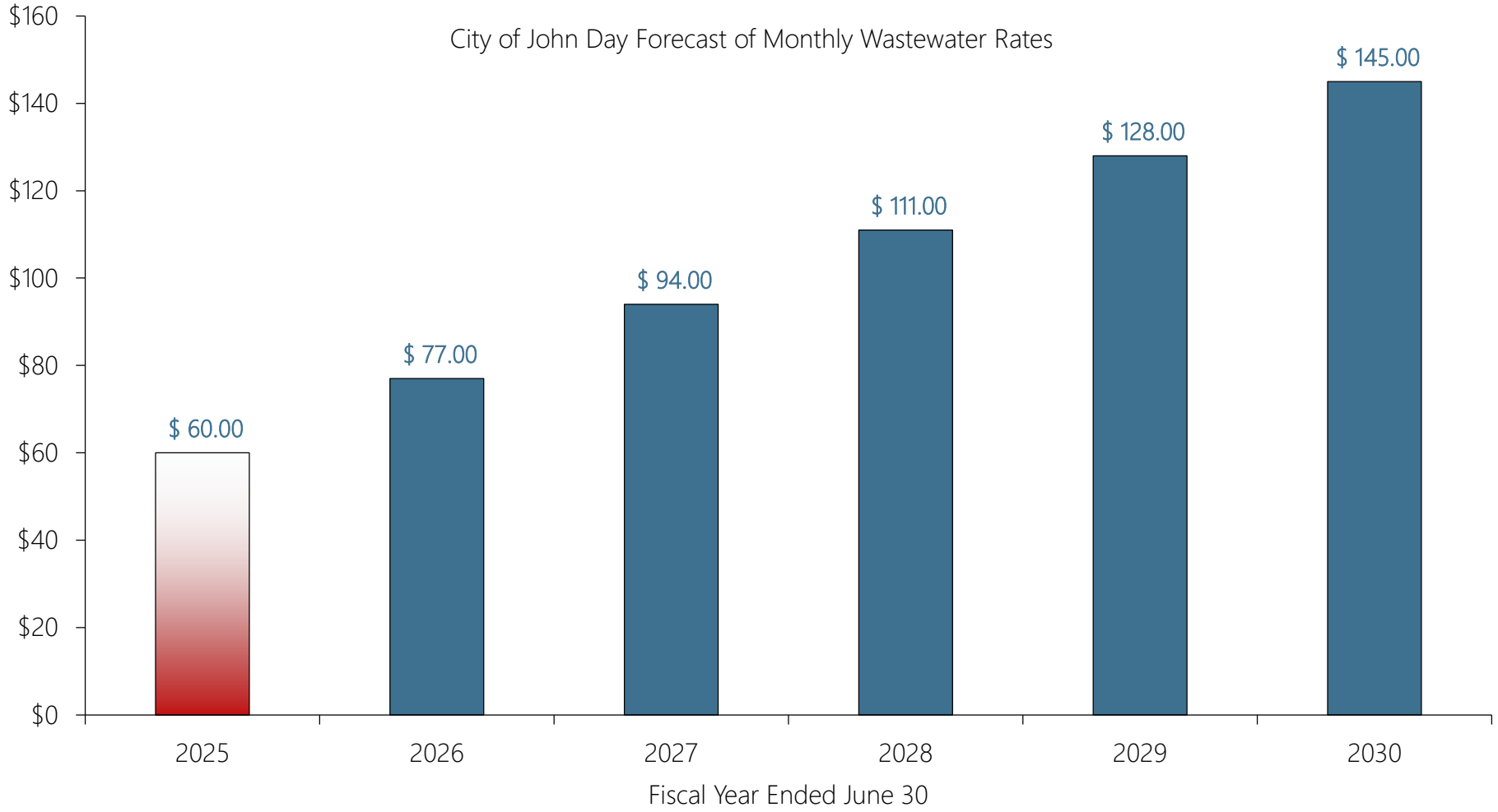
Rural Utility Service

- Principal amount $1,500,000
- 40-year term 3.00% subject to change
- Interest during construction $45,000
- Level debt service $64,894 starting in FY 2029
- Administered by USDA
- Funding after project is constructed
- Strings attached
  - Annual audit
  - BABA
  - Prevailing wage
  - Environmental assessment

FORECAST OF ANNUAL CHANGES IN REVENUE REQUIREMENTS



FORECAST OF AVERAGE MONTHLY SINGLE-FAMILY WASTEWATER BILLS



DISCUSSION

Attachment B
Sewer Rate
Forecast

	Current	Jan. 1, 2025	Forecast (January 1 by year) 2026	2027	2028	2029
I. Sewer Service Charges						
Sewer service charges will be as follows:						
A. Single-family units and multi-family units such as, but not limited to, Duplex, Triplex, Fourplex, Apartments, and Mobile Home Park have the following charges:	$60.00	$77.00	$94.00	$111.00	$128.00	$145.00
B. All other users, including commercial sewer users:						
1. Base rate (minimums):						
a. Service stations, garages, & tire shops	$66.00	$84.70	$103.40	$122.10	$140.80	$159.50
b. Hotels, motels, RV parks, laundries, food, meat, and dairy processing	$76.50	$98.17	$119.85	$141.53	$163.20	$184.87
c. All other - per unit	$64.00	$82.13	$100.27	$118.40	$136.53	$154.67
C. Schools:						
a. First 20 students based on enrollment counts in January and September of each year	$60.00	$77.00	$94.00	$111.00	$128.00	$145.00
b. Each 20 students thereafter based on enrollment counts in January and September of each year	$60.00	$77.00	$94.00	$111.00	$128.00	$145.00
c. June, July, and August minimum rate per month per school	$64.00	$82.13	$100.27	$118.40	$136.53	$154.67
D. Septage processing:						
1. Based on metered flow per gallon to approved City receiving facilities. Arrangements will be made with the City prior to any dumping into any portion of the City's wastewater collection system.	$0.30	$0.38	$0.47	$0.56	$0.64	$0.72

II. Sewer Connection Charges

Connection charges will consist of the actual costs for labor, materials, rental charge for equipment and/or vehicles (including mileage at the current mileage rate per the Internal Revenue Service allowance for vehicle usage). The City will estimate the costs for connection due prior to the start of installation. Any excess deposit will be refunded; any additional actual costs will be paid forthwith.

III. Outside City Rates and Charges

Sewer rates for all service locations outside the City limits will be double the rates provided inside the City limits, except as otherwise provided for herein. Connection charges will be at actual cost. This is not to be construed as obligating the City to provide service outside the City; rather this sets the rates and charges that are applicable if feasible to connect a requester as determined by the City.

IV. Canyon City Sewerage Services Agreement

Pursuant to the terms of Amendment No.1 to the First Amended and Restated Intergovernmental Agreement for Sewerage Services, John Day and Canyon City agree to share the costs of labor, materials, and capital expenditures related to the annual operation, maintenance and improvements of the Sewage Treatment Plant and Sewage Works, which costs include but are not limited to sludge disposal system, and related treatment facilities from Point of Delivery to the Sewage Treatment Plant and Sewage Works. To accomplish this, the parties will incur the following charges, fees and responsibilities:

1. MONTHLY FEE. Canyon City will pay a monthly fee to John Day on the 15th day of each month for its proportionate share of operation and maintenance costs and improvement costs associated with the Sewage Treatment Plant. Said fee will be based on a fixed monthly payment throughout the calendar year. Cost allocation for the operation, maintenance and improvement of the Sewage Treatment Plant from the Point of Delivery to the Sewage Treatment Plant will be at the sole discretion of the City of John Day.	$6,395.00	$8,206.87	$10,019.15	$11,830.83	$13,642.78	$15,454.52

V. Grant County Intergovernmental Agreement (Grant County Road Department)

In exchange for the completion of the bowling alley lift station upgrade, the City by resolution will establish for the County at the time of completion of required work, one monthly sewer user rate for one service line connection to the City sewer main line installed herein by the County at the rate of $28 per month until July 31, 2041. After July 31, 2041 at said location, the County will pay the City's monthly rate for sewer use; if still outside the City at the time.

ATTACHMENT A

Water Rate Forecast

Water Rate Component	Actual	Effective January 1 2025	2026	2027	2028	2029
Inside City:						
Monthly base rate - $/Account and per Dwelling Unit						
(includes the first 4,000 gallons per month)	$ 34.00	$ 35.36	$ 36.77	$ 38.24	$ 39.77	$ 41.36
Monthly community development fee - $/Account						
and Dwelling Unit	$ 6.00	$ 6.24	$ 6.49	$ 6.75	$ 7.02	$ 7.30
Volume charge - $/gallon:						
4,001 to 20,000 gallons	$ 0.00250	$ 0.00260	$ 0.00270	$ 0.00281	$ 0.00292	$ 0.00304
20,001 and over	$ 0.00310	$ 0.00322	$ 0.00335	$ 0.00348	$ 0.00362	$ 0.00376
Outside City:						
Monthly base rate - $/Account and per Dwelling Unit						
(includes the first 4,000 gallons per month)	$ 68.00	$ 70.72	$ 73.54	$ 76.48	$ 79.54	$ 82.72
Monthly community development fee - $/Account						
and Dwelling Unit	$ 6.00	$ 6.24	$ 6.49	$ 6.75	$ 7.02	$ 7.30
Volume charge - $/gallon:						
4,001 to 20,000 gallons	$ 0.00500	$ 0.00520	$ 0.00540	$ 0.00562	$ 0.00584	$ 0.00608
20,001 and over	$ 0.00620	$ 0.00644	$ 0.00670	$ 0.00696	$ 0.00724	$ 0.00752
Industrial (Bulk) rate for nondomestic use:						
1 to 20,000 gallons	$ 0.00250	$ 0.00260	$ 0.00270	$ 0.00281	$ 0.00292	$ 0.00304
20,001 and over	$ 0.00310	$ 0.00322	$ 0.00335	$ 0.00348	$ 0.00362	$ 0.00376
Tank and hydrant rate for metered water:						
Administration fee	$ 5.00	$ 5.20	$ 5.41	$ 5.63	$ 5.86	$ 6.09
Volume charge - $/gallon						
1 to 20,000 gallons	$ 0.00250	$ 0.00260	$ 0.00270	$ 0.00281	$ 0.00292	$ 0.00304
20,001 and over	$ 0.00310	$ 0.00322	$ 0.00335	$ 0.00348	$ 0.00362	$ 0.00376
Average single-family monthly water bill @ 6 kgal	**$ 39.00**	**$ 40.56**	**$ 42.17**	**$ 43.86**	**$ 45.61**	**$ 47.44**