



Tahoe-Truckee Sanitation Agency
Regular Board Meeting
September 15, 2021

TAHOE-TRUCKEE SANITATION AGENCY

A Public Agency
13720 Butterfield Drive
TRUCKEE, CALIFORNIA 96161
(530) 587-2525 • FAX (530) 587-5840



Directors

Dale Cox: President
Dan Wilkins: Vice President
David Smelser
Blake Tresan
S. Lane Lewis

General Manager

LaRue Griffin

BOARD OF DIRECTORS REGULAR MEETING NOTICE AND AGENDA

Date: September 15, 2021

Time: 9:00 AM

Place: Board Room, Tahoe-Truckee Sanitation Agency, 13720 Butterfield Drive, Truckee, California

Members of the public will have the opportunity to directly address the Agency Board of Directors concerning any item listed on the Agenda below before or during consideration of that item. To better accommodate members of the public and staff, some Agenda items may be considered in an order different than listed below.

- I. Call to Order, Roll Call, and Pledge of Allegiance**
- II. Public Comment** Discussion items only, no action to be taken. Any person may address the Board at this time upon any subject that is within the jurisdiction of Tahoe-Truckee Sanitation Agency and that does not appear on the agenda. Any matter that requires action may be referred to staff for a report and action at a subsequent Board meeting. Please note there is a five (5) minute limit per person. In addition to or in lieu of public comment, any person may submit a written statement concerning Agency business to be included in the record of proceedings and filed with the meeting minutes. Any such statement must be provided to the recording secretary at the meeting.
- III. Professional Achievements, Awards and Anniversaries** Acknowledgement of staff for professional achievement and other awards.
- IV. Consent Agenda** Consent Agenda items are routine items that may be approved without discussion. If an item requires discussion, it may be removed from the Consent Agenda prior to action.
 1. Approval of general fund warrants.
 2. Approval of financial statements.
 3. Approval of Progress Pay Estimate No. 1 for the 2021 Asphalt Sealing project.
 4. Approval of Progress Pay Estimate No. 3 for the 2020 Digital Scanning of Sewer Lines project.
 5. Approval of Change Order No. 2 for the 2021 Plant Painting project.
 6. Approval of Progress Pay Estimate No. 4 for the 2021 Plant Painting project.
 7. Approval of Progress Pay Estimate No. 5 for the 2020 Headworks Improvements project.

V. Regular Agenda

1. Appointment of Agency Board President and Vice President.
2. Approval of the minutes of the regular Board meeting on August 18, 2021.
3. Approval to award the Pretreatment Program Review Services.
4. Discussion of Administrative Building front entry landscape improvements.
5. Discussion of potential alternative disinfection processes.

VI. Management Team Report

1. Department Reports.
2. General Manager Report.

VII. Board of Director Comment Opportunity for directors to ask questions for clarification, make brief announcements and reports, provide information to staff, request staff to report back on a matter, or direct staff to place a matter on a subsequent agenda.

VIII. Closed Session

1. Conference with General Manager, as Agency real property negotiator, concerning price and terms of payment relating to potential to real property exchange with Truckee Tahoe Airport District concerning Nevada County APN 019-440-81, APN 049-040-24 and APN 049-040-25 pursuant to Government Code Section 54956.8.
2. Closed session for public employee performance evaluation of the General Manager position.

IX. Adjournment

Posted and Mailed, 09/09/21



LaRue Griffin
Secretary to the Board

In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in this meeting, then please contact Roshelle Chavez at 530-587-2525 or 530-587-5840 (fax) or email rchavez@ttsa.net. Requests must be made as early as possible, and at least one-full business day before the start of the meeting.

Documents and material relating to an open session agenda item that are provided to the T-TSA Board of Directors less than 72 hours prior to a regular meeting will be available for public inspection and copying at the Agency's office located at 13720 Butterfield Drive, Truckee, CA.



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: I
Subject: Call to Order, Roll Call, and Pledge of Allegiance

Background

Call to Order, Roll Call, and Pledge of Allegiance.



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: II
Subject: Public Comment

Background

Discussion items only, no action to be taken. Any person may address the Board at this time upon any subject that is within the jurisdiction of Tahoe-Truckee Sanitation Agency and that does not appear on the agenda. Any matter that requires action may be referred to staff for a report and action at a subsequent Board meeting. There is a five (5) minute limit per person.



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Vicky Lufrano, Human Resources Administrator
Item: III
Subject: Professional Achievements, Awards & Anniversaries

Background

Acknowledgement of staff for professional achievements, awards and anniversaries received the previous calendar month or quarter.

Achievements and Promotions

- New Hire – Trevor Shamblin – Assistant Engineer – Engineering Department.

Fiscal Impact

None.


Attachments

None.

Recommendation

No action required.

Review Tracking

Submitted By: 
Vicky Lufrano
Human Resources Administrator

Approved By: 
LaRue Griffin
General Manager



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Crystal Sublet, Finance and Administrative Manager
Item: IV-1
Subject: Approval of general fund warrants

Background

The Agency implemented the Caselle software program and the report of general fund warrants is attached as prepared by Agency accounting software. It should be noted, payroll summaries are excluded from the general fund warrants and are incorporated into the financial statements.

All warrants are paid and payable for the previous calendar month(s).

Fiscal Impact

Decrease in Agency funds per the warrant amounts.

Attachments

Report of general fund warrants.

Recommendation

Management and staff recommend approval of the general fund warrants paid and payable.

Review Tracking

Submitted By: *Crystal A Sublet*
Crystal Sublet
Finance and Administrative Manager

Approved By: *LaRue Griffin*
LaRue Griffin
General Manager

Payee	Check Number	Check Issue Date	Description	Amount
AIRGAS USA LLC				
	87380	08/18/2021	JULY CYLINDER RENTALS	100.34 M
	87380	08/18/2021	JULY CYLINDER RENTALS	25.80 M
	87380	08/18/2021	JULY CYLINDER RENTALS	71.68 M
Total AIRGAS USA LLC:				197.82
ALLIED ELECTRONICS				
	87395	08/18/2021	Dwyer Instruments 1823-1	309.31 M
Total ALLIED ELECTRONICS:				309.31
ALPHA ANALYTICAL INC				
	87361	08/10/2021	JUNE BARIUMS	210.00 M
	87416	08/23/2021	ANNUAL RIVER & WELL SAMPLES	1,862.50 M
	87416	08/23/2021	2Q 2021 THM	925.00 M
	87416	08/23/2021	2Q 2021 BIOSOLIDS	100.00 M
	87416	08/23/2021	2Q 2021 PRETREATMENT	2,010.00 M
	87416	08/23/2021	TEICHERT SOIL JUNE 2021	2,460.00 M
Total ALPHA ANALYTICAL INC:				7,567.50
ALPINE LOCK & KEY				
	87408	08/18/2021	TRIP CHARGE	80.00 M
	87408	08/18/2021	COMMERCIAL LOCK INSTALLATION EXISTING/REDO	37.89 M
	87408	08/18/2021	LOCK REPLACEMENT - NEG GRADE1 ENT 626R	182.94 M
	87408	08/18/2021	SCHLAGE SC1 BRASS KEY COPIES	14.00 M
Total ALPINE LOCK & KEY:				314.83
AMERICAN EQUIPMENT INC				
	87317	08/18/2021	CAL-OSHA ANNUAL HOIST INSPECTIONS PER AGREEMENT	3,834.20
Total AMERICAN EQUIPMENT INC:				3,834.20
ARAMARK WORK APPAREL				
	87318	08/18/2021	MATS	166.79
	87318	08/18/2021	TOWELS	21.50
	87318	08/18/2021	SVC CHARGE	10.50
	87393	08/18/2021	MATS	150.30 M
	87393	08/18/2021	TOWELS	23.65 M
	87393	08/18/2021	SVC CHARGE	10.50 M
Total ARAMARK WORK APPAREL:				383.24
ASBURY ENVIRONMENTAL SERVICES				
	87400	08/18/2021	Waste Oil Pickup	95.00 M
Total ASBURY ENVIRONMENTAL SERVICES:				95.00
AT&T 831-000-9983 804				
	87418	08/23/2021	AUGUST INVOICE 10%	155.44 M
	87418	08/23/2021	AUGUST INVOICE 90%	1,399.03 M
Total AT&T 831-000-9983 804:				1,554.47

Payee	Check Number	Check Issue Date	Description	Amount
AWAXX SYSTEMS INC.				
	87404	08/18/2021	NEW EXIT GATE PER ESTIMATE #4004	12,160.50 M
Total AWAXX SYSTEMS INC.:				12,160.50
BARTKIEWICZ, KRONICK & SHANAHAN				
	87387	08/18/2021	JULY FEES	3,977.50 M
Total BARTKIEWICZ, KRONICK & SHANAHAN:				3,977.50
CAROLLO				
	87414	08/23/2021	MASTER SEWER PLAN	18,449.75 M
	87414	08/23/2021	MASTER SEWER PLAN	26,813.75 M
Total CAROLLO:				45,263.50
CASELLE				
	87319	08/18/2021	SEPT SVC FEES	3,208.00
Total CASELLE:				3,208.00
CDW-G				
	87320	08/18/2021	StarTech.com Ergonomic Anti-Fatigue Mat for Standing Desks - 20in x 30in	93.93
	87320	08/18/2021	Black Box 10' USB Passive Extension Cable USB Extender	36.37
	87320	08/18/2021	APC Smart-UPS 750VA EcoStruxure Ready Sinewave Tower, LCD, 120V	731.75
	87320	08/18/2021	StarTech.com 25 ft RJ11 Telephone Modem Cable - Phone cable - RJ-11 (M) - R	7.55
	87320	08/18/2021	Logitech S120 PC Speakers	30.22
	87320	08/18/2021	SHIPPING	71.69
Total CDW-G:				971.51
CH2M HILL				
	87411	08/18/2021	#3 GENERAL CONSULTING	2,041.26 M
	87411	08/18/2021	#36 2021 CHLORINE SCRUBBER IMPROVEMENTS PROJECT	7,847.59 M
	87411	08/18/2021	#32 HEADWORKS IMPROVEMENTS PROJECT	47,542.88 M
Total CH2M HILL:				57,431.73
CHARD SNYDER & ASSOCIATES				
	87420	08/25/2021	AUGUST ADMIN FEES	43.68 M
	87420	08/25/2021	AUGUST ADMIN FEES	9.00 M
	87420	08/25/2021	AUGUST ADMIN FEES	3.00 M
	87420	08/25/2021	AUGUST ADMIN FEES	76.64 M
	87420	08/25/2021	AUGUST ADMIN FEES	31.68 M
	87420	08/25/2021	AUGUST ADMIN FEES	36.00 M
	87420	08/25/2021	AUGUST ADMIN FEES	15.00 M
	87420	08/25/2021	AUGUST ADMIN FEES	9.00 M
	87420	08/25/2021	AUGUST ADMIN FEES	3.00 M
	87423	08/25/2021	JULY ADMIN FEES	31.68 M
	87423	08/25/2021	JULY ADMIN FEES	9.00 M
	87423	08/25/2021	JULY ADMIN FEES	3.00 M
	87423	08/25/2021	JULY ADMIN FEES	67.64 M
	87423	08/25/2021	JULY ADMIN FEES	22.68 M
	87423	08/25/2021	JULY ADMIN FEES	36.00 M
	87423	08/25/2021	JULY ADMIN FEES	15.00 M
	87423	08/25/2021	JULY ADMIN FEES	9.00 M
	87423	08/25/2021	JULY ADMIN FEES	3.00 M

Payee	Check Number	Check Issue Date	Description	Amount
	8302101	08/30/2021	FSA	10.00 M
	8302101	08/30/2021	HRA	35.00 M
	8302101	08/30/2021	HRA	615.30 M
	8302101	08/30/2021	HRA	18.22 M
	8302101	08/30/2021	HRA	34.00 M
	8302101	08/30/2021	FSA	15.00 M
	8302101	08/30/2021	HRA	35.00 M
	8302101	08/30/2021	HRA	255.45 M
	8302101	08/30/2021	FSA	42.00 M
	8302101	08/30/2021	FSA	10.00 M
	8302101	08/30/2021	HRA	108.00 M
	8302101	08/30/2021	HRA	20.00 M
	8302101	08/30/2021	FSA	34.38 M
	8302101	08/30/2021	HRA	48.70 M
	8302101	08/30/2021	FSA	49.50 M
	8302101	08/30/2021	HRA	250.00 M
	8302101	08/30/2021	FSA	35.00 M
	8302101	08/30/2021	HRA	108.00 M
	8302101	08/30/2021	HRA	85.00 M
	8302101	08/30/2021	HRA	5.00 M
	8302101	08/30/2021	HRA	10.00 M
	8302101	08/30/2021	HRA	77.91 M
	8302101	08/30/2021	HRA	402.65 M
	8302101	08/30/2021	HRA	15.00 M
	8302101	08/30/2021	HRA	52.42 M
	8302101	08/30/2021	HRA	85.00 M
	8302101	08/30/2021	HRA	20.00 M
	8302101	08/30/2021	HRA	312.26 M
	8302101	08/30/2021	HRA	35.00 M
	8302101	08/30/2021	HRA	102.50 M
	8302101	08/30/2021	HRA	20.00 M
	8302101	08/30/2021	HRA VISION	400.00 M
	8302101	08/30/2021	HRA	14.11 M
	8302101	08/30/2021	HRA VISION	45.50 M
	8302101	08/30/2021	HRA	56.00 M
	8302101	08/30/2021	DCA	269.23 M
	8302101	08/30/2021	HRA	276.05 M
	8302101	08/30/2021	HRA	780.00 M
	8302101	08/30/2021	FSA	52.80 M
	8302101	08/30/2021	HRA	20.00 M
	8302101	08/30/2021	HRA	68.93 M
	8302101	08/30/2021	HRA	35.00 M
	8302101	08/30/2021	HRA VISION	282.31 M
	8302101	08/30/2021	HRA	569.00 M
	8302101	08/30/2021	HRA	78.24 M
	8302101	08/30/2021	HRA VISION	800.00 M
	8302101	08/30/2021	DCA	269.23 M
	8302101	08/30/2021	HRA	167.80 M
	8302101	08/30/2021	HRA	865.32 M
	8302101	08/30/2021	HRA	121.00 M
Total CHARD SNYDER & ASSOCIATES:				8,540.81
CLARK PEST CONTROL				
	87321	08/18/2021	JULY INVOICE	281.00

Payee	Check Number	Check Issue Date	Description	Amount
Total CLARK PEST CONTROL:				281.00
CORELOGIC INFORMATION SOLUTIONS, IN				
	87322	08/18/2021	JULY INVOICE	491.73
Total CORELOGIC INFORMATION SOLUTIONS, IN:				491.73
CRYSTAL SUBLET				
	87413	08/18/2021	JUNE CELL PHONE	18.04 M
	87413	08/18/2021	JULY CELL PHONE	18.04 M
	87413	08/18/2021	AUG CELL PHONE	18.04 M
Total CRYSTAL SUBLET:				54.12
CUTTING IMAGE LLC				
	87375	08/18/2021	A/P LASER CHECKS US BANK ACCT#153401397630 STARTING #87500 NO D	232.45 M
Total CUTTING IMAGE LLC:				232.45
CWEA				
	87323	08/18/2021	CWEA Association Membership (Tobin Fuchs)	192.00
	87398	08/18/2021	CERTIFICATION	101.00 M
	87398	08/18/2021	CERTIFICATION	101.00 M
Total CWEA:				394.00
DATCO SERVICES CORP.				
	87388	08/18/2021	EMPLOYEE SCREENING	45.00 M
Total DATCO SERVICES CORP.:				45.00
DAVID AND ERIN JOST ; BULLSHEAD				
	87384	08/18/2021	ANNUAL WIRTH BRIDGE MAINTENANCE	200.00 M
Total DAVID AND ERIN JOST ; BULLSHEAD:				200.00
DELL COMPUTER CORP. C/O DELL USA L.				
	87396	08/18/2021	Dell Carry Case - Laptop carrying case - 12-inch - for Latitude 12 Rugged Tablet 7	32.03 M
Total DELL COMPUTER CORP. C/O DELL USA L.:				32.03
ENGINEERING NEWS - RECORD				
	87389	08/18/2021	RENEWAL OF ENR DIGITAL	84.00 M
Total ENGINEERING NEWS - RECORD:				84.00
ENVIRONMENTAL WATER SOLUTIONS, INC.				
	87324	08/18/2021	TUTHILL PD PLUS BLOWER PER QUOTE#21-0609-CAC01, R1	11,507.75
	87324	08/18/2021	TUTHILL PD PLUS BLOWER PER QUOTE#21-0609-CAC01, R1	23,004.28
Total ENVIRONMENTAL WATER SOLUTIONS, INC.:				34,512.03
EURO STYLE MANAGEMENT				
	87405	08/18/2021	PPE#3 PLANT COATING IMPROVEMENTS	79,010.00 M
	87405	08/18/2021	RETENTION#3 PLANT COATING IMPROVEMENTS	3,950.50- M

Payee	Check Number	Check Issue Date	Description	Amount
Total EURO STYLE MANAGEMENT:				75,059.50
FEDERAL EXPRESS CORP.				
	87325	08/18/2021	SHIPPING CHARGES FOR UTILITY SYSTEMS SCIENCE	66.98
Total FEDERAL EXPRESS CORP.:				66.98
FISHER SCIENTIFIC COMPANY				
	87374	08/18/2021	Plate Count Agar	748.20 M
	87374	08/18/2021	Difco LTB	628.91 M
	87374	08/18/2021	40 mL VOA Vials	777.04 M
	87374	08/18/2021	Prospore Indicator	195.34 M
	87399	08/18/2021	BUFFER PILLOWS	72.54 M
	87399	08/18/2021	DPD REAGENT	141.64 M
	87399	08/18/2021	OXIDIZING LABELS	43.81 M
	87399	08/18/2021	DRY HEAT LABELS	59.33 M
	87399	08/18/2021	DROPPER BOTTLES	168.72 M
	87399	08/18/2021	LDO CAPS	361.50 M
	87399	08/18/2021	EZ GGA	134.88 M
	87399	08/18/2021	SEVERE TOXIC LABELS	37.86 M
	87399	08/18/2021	CORROSIVE LABELS	28.86 M
	87399	08/18/2021	FLAMMABLE LABELS	28.30 M
	87399	08/18/2021	HEALTH LABELS	28.86 M
	87399	08/18/2021	ACUTE LABELS	28.86 M
	87399	08/18/2021	AUTOClave TAPE	40.75 M
	87399	08/18/2021	SHIPPING CHARGE	36.96 M
Total FISHER SCIENTIFIC COMPANY:				3,562.36
GOVERNMENT FINANCE OFFICERS ASSOCIATION				
	87326	08/18/2021	MEMBERSHIP RENEWAL	160.00
Total GOVERNMENT FINANCE OFFICERS ASSOCIATION:				160.00
GRAINGER INC., W.W.				
	87327	08/18/2021	1/20 HP Diaphragm Compressor/Vacuum Pump	923.17
	87327	08/18/2021	Replacement Screen, Hayward, Y MSA	297.58
	87327	08/18/2021	Kit, Includes Lens No, For Use With Ultra Elite Full Facepiece Respirato Glasses: Anti-Scratch, Frameless, Clear, Clear, Clear, M Eyewear Size, Uni	290.49
	87327	08/18/2021	GREENSEAM Galvanized Steel 90 Degree Elbow, 14 in Duct Fitting Diameter, 17	77.40
	87327	08/18/2021		17.30
Total GRAINGER INC., W.W.:				1,605.94
HACH CHEMICAL COMPANY				
	87328	08/18/2021	HACH LDO SC MODEL 2, DO PROBE	9,539.15
	87376	08/18/2021	WITHLUMIN 1MG/L STANDARD SOLUTION	614.37 M
	87376	08/18/2021	CLEANING SOLUTION	343.38 M
	87376	08/18/2021	REAGENT 2500ML	204.78 M
	87376	08/18/2021	1MG/L STANDARD SOLUTION	606.20 M
	87376	08/18/2021	10MG/L STANDARD SOLUTION	606.20 M
	87376	08/18/2021	MOUNTING CONVERSION ADAPTER	261.95 M
Total HACH CHEMICAL COMPANY:				12,176.03
ILEANA VASSILIOU				
	87329	08/18/2021	JULY TRAINING	329.00

Payee	Check Number	Check Issue Date	Description	Amount
	87329	08/18/2021	JULY TRAINING	129.00
	87329	08/18/2021	JULY TRAINING	129.00
	87329	08/18/2021	JULY TRAINING	200.00
Total ILEANA VASSILIOU:				787.00
INNOVATIVE HYDRAULICS				
	87402	08/18/2021	Visual Hydraulics Renewal	300.00 M
Total INNOVATIVE HYDRAULICS:				300.00
INSTRUMART.COM				
	87330	08/18/2021	Rosemount 3051C Smart Pressure Transmitter	6,673.58
	87330	08/18/2021	Rosemount 0304 Conventional Manifold	988.78
Total INSTRUMART.COM:				7,662.36
J&L PRO KLEEN INC				
	87331	08/18/2021	JULY JANITORIAL SERVICE	2,300.00
	87410	08/18/2021	AUGUST JANITORIAL SVC	2,300.00 M
Total J&L PRO KLEEN INC:				4,600.00
J.W. WELDING SUPPLY				
	87368	08/10/2021	NITROGEN CYLINDERS	83.78 M
Total J.W. WELDING SUPPLY:				83.78
JAMES TOBIN FUCHS				
	87401	08/18/2021	BOOTS	250.00 M
Total JAMES TOBIN FUCHS:				250.00
JOHNSON CONTROLS INC				
	87407	08/18/2021	PPE#2 CHILLER REPLACEMENT	3,829.80 M
	87407	08/18/2021	RETENTION#2 CHILLER REPLACEMENT	191.49- M
Total JOHNSON CONTROLS INC:				3,638.31
JOHNSON CONTROLS SECURITY SOLUTIONS				
	87332	08/18/2021	INSTALLATION OF CAMERA SYSTEM PER AGREEMENT	7,148.99
Total JOHNSON CONTROLS SECURITY SOLUTIONS:				7,148.99
K.G. WALTERS CONSTRUCTION., INC.				
	87406	08/18/2021	PPE#4 HEADWORKS IMPROVEMENTS PROJECT	196,894.94 M
	87406	08/18/2021	RETENTION#4 HEADWORKS IMPROVEMENTS PROJECT	9,844.75- M
Total K.G. WALTERS CONSTRUCTION., INC.:				187,050.19
KEN GRADY CO. INC				
	87333	08/18/2021	0.6% Propane Calibration Gas	324.63
Total KEN GRADY CO. INC:				324.63
LIBERTY PROCESS EQUIPMENT INC				
	87334	08/18/2021	P Cover Sleeve	727.18

Payee	Check Number	Check Issue Date	Description	Amount
	87334	08/18/2021	Retaining Sleeve	248.00
	87334	08/18/2021	Coupling Rod Bushing	792.00
	87334	08/18/2021	Guide Bushing	600.00
	87334	08/18/2021	Coupling Rod Pin	220.00
	87334	08/18/2021	316 Clamping Band	392.00
	87334	08/18/2021	P EW Stator	5,346.00
	87334	08/18/2021	SS Rotor	5,318.00
	87334	08/18/2021	PACKAGING FEE	12.00
	87366	08/10/2021	JUNE ELECTRIC	9.36 M
	87366	08/10/2021	JULY ELECTRIC	26.76 M
	87366	08/10/2021	JUNE ELECTRIC	8.96 M
	87366	08/10/2021	JULY ELECTRIC	18.75 M
	87366	08/25/2021	JUNE ELECTRIC	9.36- V
	87366	08/25/2021	JULY ELECTRIC	26.76- V
	87366	08/25/2021	JUNE ELECTRIC	8.96- V
	87366	08/25/2021	JULY ELECTRIC	18.75- V
Total LIBERTY PROCESS EQUIPMENT INC:				13,655.18
LIBERTY UTILITIES				
	87382	08/18/2021	JUNE/JULY ELECTRIC	32.83 M
	87382	08/18/2021	JUNE/JULY ELECTRIC	38.02 M
	87382	08/18/2021	JUNE/JULY ELECTRIC	25.12 M
	87421	08/25/2021	JUNE/JULY ELECTRIC	36.12 M
	87421	08/25/2021	JUNE/JULY ELECTRIC	27.71 M
Total LIBERTY UTILITIES:				159.80
MAGID GLOVE & SAFETY CO LLC				
	87335	08/18/2021	Lakeland ChemMax1 C5414 Disposable Chemical Protective Coveralls, 25/case	197.56
	87394	08/18/2021	Jackson Safety V30 NEMESIS Safety Glasses	90.93 M
Total MAGID GLOVE & SAFETY CO LLC:				288.49
MARK MESSERSCHMIDT				
	87336	08/18/2021	REIMBURSEMENT CDL PERMIT FEES	145.50
Total MARK MESSERSCHMIDT:				145.50
MCMASTER-CARR				
	87337	08/18/2021	Silicone Gasket 2-1/2" Pipe x 1/8" Thickness	170.43
	87337	08/18/2021	Silicone Gasket 2" Pipe x 1/8" Thickness	74.20
	87337	08/18/2021	Silicone Gasket 2" Pipe x 1/16" Thickness	27.66
	87337	08/18/2021	Silicone Gasket 1-1/4" Pipe x 1/16" Thickness	27.01
	87337	08/18/2021	Corrosion-Resistant 316/316L Stainless Steel Rod 3-1/4" Diameter; 1 foot length.	236.02
	87337	08/18/2021	Beam Clamp	324.42
	87337	08/18/2021	1-5/8 slotted S.S. strut. 10 ft length.	304.01
	87337	08/18/2021	3/8 S.S. all thread. 5 ft length.	30.80
	87337	08/18/2021	3/8 S.S. Nuts. Pack of 50	8.21
	87337	08/18/2021	S.S. 3/8 Washers. Pack of 25	20.09
	87337	08/18/2021	SHIPPING	119.62
Total MCMASTER-CARR:				1,342.47
MICHAEL J SMITH				
	87397	08/18/2021	REIMB FEDEX FEES CAL OSHA	41.71 M

Payee	Check Number	Check Issue Date	Description	Amount
Total MICHAEL J SMITH:				41.71
MOUNTAIN HARDWARE				
	87338	08/18/2021	GARBAGE DISPOSAL, ALL IN ONE SEED	126.63
	87391	08/18/2021	NETTING FOR PLANT COATING PROJECT	260.68 M
Total MOUNTAIN HARDWARE:				387.31
MSA SAFETY SALES LLC				
	87378	08/18/2021	MSAX5000 O-100PPM CO DETECTOR PER QUOTE #JPRQ84017-02	3,299.84 M
Total MSA SAFETY SALES LLC:				3,299.84
NEWARK ELECTRONICS				
	87339	08/18/2021	Phoenix Contact D-Sub Connector Subcon-Plus-Profib/AX/SC	149.09
Total NEWARK ELECTRONICS:				149.09
OFFICE DEPOT				
	87340	08/18/2021	HANGING FOLDERS, LETTER SIZE, GREEN	15.26
	87340	08/18/2021	2-TONE HANGING FILE FOLDERS, LETTER SIZE	4.56
	87340	08/18/2021	JUMBO PAPER CLIPS	11.34
	87340	08/18/2021	SHARPIE ULTRA-FINE MARKERS, BLACK	8.87
	87340	08/18/2021	SHARPIE ULTRA-FINE MARKERS, RED	8.87
	87340	08/18/2021	SHARPIE KING-SIZE MARKERS, BLACK	15.39
	87340	08/18/2021	RUBBER GRIP STRAIGHT SCISSORS - 7"	5.94
	87340	08/18/2021	PILOT FINELINER MARKERS - BLUE	19.37
	87340	08/18/2021	GEL MOUSE PAD WITH WRIST REST, FLOWERS	36.78
	87340	08/18/2021	DAY DESIGNER PLANNER - PALMS	16.23
	87340	08/18/2021	BLUE SKY PLANNING CALENDAR - MAHALO	16.36
	87340	08/18/2021	LASKO TOWER FAN	68.94
	87340	08/18/2021	GEL KEYBOARD WRIST REST, BEACH	21.64
Total OFFICE DEPOT:				249.55
PAC MACHINE CO.				
	87341	08/18/2021	8" X 20' DR17 HDPE SUCTION TUBE; FULLY FUSED/ASSEMBLED AT PMC SH	6,906.35
	87341	08/18/2021	6" FLANGE X 8" FLANGE ECCENTRIC ADAPTER; GALVINIZED	649.50
	87341	08/18/2021	SHIPPING TO TTSA	470.00
Total PAC MACHINE CO.:				8,025.85
PACIFIC OFFICE AUTOMATION				
	87369	08/10/2021	JUNE INVOICE	4.92 M
	87369	08/10/2021	JULY INVOICE	45.85 M
	87422	08/25/2021	JULY INVOICE	164.82 M
	87422	08/25/2021	AUGUST INVOICE	164.82 M
Total PACIFIC OFFICE AUTOMATION:				380.41
PAN PACIFIC SUPPLY				
	87342	08/18/2021	55mm Chesterton 155 Seal TC/CB/FKM	3,537.65
Total PAN PACIFIC SUPPLY:				3,537.65

Payee	Check Number	Check Issue Date	Description	Amount
PAYMENTUS GROUP INC				
	87372	08/18/2021	TRANS FEES FOR MAY 2021	10.50 M
	87417	08/23/2021	TRANS FEES FOR JULY 2021	226.50 M
Total PAYMENTUS GROUP INC:				237.00
PERS-RETIREMENT				
	8232101	08/23/2021	GASB-68 REPORTS	700.00 M
Total PERS-RETIREMENT:				700.00
PLATT ELECTRIC COMPANY				
	87383	08/18/2021	Conduit Body, Type C, 1/2"	67.52 M
	87383	08/18/2021	Conduit Body, Type LR, 1/2"	40.53 M
	87383	08/18/2021	Conduit Body, Type LB, 1/2"	53.44 M
	87383	08/18/2021	Conduit Body, Type LL, 1/2"	40.53 M
	87383	08/18/2021	Conduit Body Cover, Type Screw On, 1/2"	69.77 M
	87383	08/18/2021	Conduit Body Gasket, Type Convertible Solid/Open, 1/2"	42.24 M
	87383	08/18/2021	1/2"D Liquidtight, Non Metallic, Gray, 100 Ft per roll	77.92 M
	87383	08/18/2021	1/2"D, 90 Elbow, Rigid Conduit	177.39 M
	87383	08/18/2021	Master Flash Roof Flashing, 1/4"-2"	30.15 M
	87383	08/18/2021	Pulling Elbow, 1/2", 90, Female to Female	61.18 M
	87383	08/18/2021	1/2" Steel Reusable Liquid Tight Connector	34.76 M
Total PLATT ELECTRIC COMPANY:				695.43
PRAXAIR DISTRIBUTION INC				
	87367	08/10/2021	JUNE CYLINDER RENTALS	20.00 M
	87367	08/10/2021	JULY CYLINDER RENTALS	57.33 M
Total PRAXAIR DISTRIBUTION INC:				77.33
PROMANTEK INC				
	87379	08/18/2021	Annual Trakstar subscription	4,175.00 M
Total PROMANTEK INC:				4,175.00
R.F. MACDONALD COMPANY				
	87343	08/18/2021	BOILER REPAIRS	3,181.76
Total R.F. MACDONALD COMPANY:				3,181.76
RAGLEN SYSTEM BALANCE INC				
	87344	08/18/2021	Test and balance services, billing complete 2nd trip.	1,000.00
Total RAGLEN SYSTEM BALANCE INC:				1,000.00
RENO BUSINESS INTERIORS				
	87345	08/18/2021	FURNITURE PER QUOTE #B3R0508 SERIES 38000	3,781.28
	87345	08/18/2021	INSTALLATION	425.00
Total RENO BUSINESS INTERIORS:				4,206.28
ROY SMITH COMPANY				
	87346	08/18/2021	LIQUID OXYGEN	2,349.79
	87346	08/18/2021	LIQUID OXYGEN	2,312.22
	87346	08/18/2021	LIQUID OXYGEN	2,309.33

Payee	Check Number	Check Issue Date	Description	Amount
	87346	08/18/2021	LIQUID OXYGEN	4,302.66
	87346	08/18/2021	LIQUID OXYGEN	4,558.93
Total ROY SMITH COMPANY:				15,832.93
SCOTT FLEMING				
	87415	08/23/2021	BOOTS REIMBURSEMENT	250.00 M
Total SCOTT FLEMING:				250.00
SEAL ANALYTICAL INC				
	87370	08/11/2021	Basic Support Contract Agreement	4,510.00 M
Total SEAL ANALYTICAL INC:				4,510.00
SIERRA ELECTRONICS				
	87390	08/18/2021	Motorola Factory Repair - XPR7550e - Repair Tag 3650040	387.50 M
Total SIERRA ELECTRONICS:				387.50
SOLENIS				
	87363	08/10/2021	K290FLX PRAESTOL/POLYMER - QUOTE #20005025	11,968.75 M
	87409	08/18/2021	PRAESTOL K290FLX 3 TOTES POLYMER	4,189.38 M
	87409	08/18/2021	PRAESTOL K290FLX 3 TOTES POLYMER	8,378.77 M
	87409	08/18/2021	PRAESTOL K 279 FLX IBC PER QUOTE #20005138	4,189.38 M
Total SOLENIS:				28,726.28
SOUTHWEST GAS CORP.				
	87347	08/18/2021	JULY NATURAL GAS 10%	81.29
	87347	08/18/2021	JULY NATURAL GAS 90%	731.63
	87347	08/18/2021	JULY NATURAL GAS 10%	119.29
	87347	08/18/2021	JULY NATURAL GAS 90%	1,073.66
Total SOUTHWEST GAS CORP.:				2,005.87
ST OF CA; DEPT OF INDUSTRIAL RELATI				
	87365	08/10/2021	Annual Conveyance Invoice #E1815308 SA	225.00 M
Total ST OF CA; DEPT OF INDUSTRIAL RELATI:				225.00
TAHOE FOREST HOSP. DIST./TAHOE WORX				
	87386	08/18/2021	EMPLOYEE SCREENING	253.50 M
Total TAHOE FOREST HOSP. DIST./TAHOE WORX:				253.50
TAHOE SUPPLY COMPANY LLC				
	87348	08/18/2021	Tahoe Fresh Detergent 50#	46.01
	87348	08/18/2021	Liner 38x58 1.5ml 60gl Black 100/cs Coreless Roll	81.42
	87348	08/18/2021	Liner 30x36 1.25ml 250/cs Coreless Roll	61.51
	87348	08/18/2021	Liner 24x32 .8mil 500/cs Black Coreless Roll	62.22
	87348	08/18/2021	Single Fold Towels White cs/4008	61.89
Total TAHOE SUPPLY COMPANY LLC:				313.05
TAHOE TRUCKEE DISPOSAL				
	87349	08/18/2021	JULY SLUDGE	5,731.60

Payee	Check Number	Check Issue Date	Description	Amount
	87349	08/18/2021	JULY CENTRIFUGE	20,343.40
Total TAHOE TRUCKEE DISPOSAL:				26,075.00
THATCHER COMPANY OF CA INC				
	87350	08/18/2021	CHLORINE	4,049.82
	87350	08/18/2021	CHLORINE EMPTIES	2,000.00-
	87350	08/18/2021	CHLORINE	8,099.64
	87350	08/18/2021	CHLORINE EMPTIES	4,000.00-
	87350	08/18/2021	CHLORINE	4,035.97
	87350	08/18/2021	CHLORINE EMPTIES	2,000.00-
	87350	08/18/2021	CHLORINE	8,099.64
	87350	08/18/2021	CHLORINE EMPTIES	4,000.00-
Total THATCHER COMPANY OF CA INC:				12,285.07
THE UNION				
	87381	08/18/2021	PUBLIC NOTICE REMOTE 2021 EMAIL	506.96 M
Total THE UNION:				506.96
THOMSON WEST				
	87424	08/30/2021	DECEMBER INVOICE	347.75 M
Total THOMSON WEST:				347.75
TITAN WIRE & CABLE				
	87351	08/18/2021	THHN 12 AWG 1C (STR) WHT - 500' Roll (2)	267.09
Total TITAN WIRE & CABLE:				267.09
TOYOTA MATERIAL HANDLING, TMH				
	87352	08/18/2021	TAYLOR-DUNN ELECTRIC VEHICLE - WHITE	9,938.93
Total TOYOTA MATERIAL HANDLING, TMH:				9,938.93
TRANSCAT				
	87310	08/04/2021	VACUUM PUMP, 3 FOOT HOSE	844.04- V
Total TRANSCAT:				844.04-
TRUCKEE DONNER PUD				
	87353	08/18/2021	JULY ELECTRIC 10%	4.63
	87353	08/18/2021	JULY ELECTRIC 90%	41.76
	87353	08/18/2021	JULY ELECTRIC 10%	5.47
	87353	08/18/2021	JULY ELECTRIC 90%	49.27
	87353	08/18/2021	JULY ELECTRIC 10%	2.73
	87353	08/18/2021	JULY ELECTRIC 90%	24.59
	87353	08/18/2021	JULY ELECTRIC 10%	8,219.90
	87353	08/18/2021	JULY ELECTRIC 90%	73,979.15
	87353	08/18/2021	JULY WATER 10%	12.69
	87353	08/18/2021	JULY WATER 90%	114.30
Total TRUCKEE DONNER PUD:				82,454.49
U.S. BANK CARD DIVISION				
	8242101	08/24/2021	ADOBE IT	17.99 M

Payee	Check Number	Check Issue Date	Description	Amount
	8242101	08/24/2021	MICROSOFT	237.50 M
	8242101	08/24/2021	MICROSOFT	72.00 M
	8242101	08/24/2021	GOOGLE GSUITE	901.20 M
	8242101	08/24/2021	WEB SERVICES	7.31 M
	8242101	08/24/2021	GOTOMEETING	84.00 M
	8242101	08/24/2021	SAFETY LUNCH	12.97 M
	8242101	08/24/2021	SAFETY LUNCH	60.14 M
	8242101	08/24/2021	ZOOM	110.00 M
	8242101	08/24/2021	BOARD MEETING SUPPLIES	57.63 M
	8242101	08/24/2021	OTTERBOX CASE, SCREEN PROTECTOR	179.59 M
	8242101	08/24/2021	DANNER MENS BULL RUN WELLINGTON BOOTS	205.62 M
	8242101	08/24/2021	DOWFROST 50% BLEND 55 GALLON DRUM	880.79 M
	8242101	08/24/2021	ANCHORS, WIREGLASS,HINGE, SATIN CHROME STOREROOM SATURN	1,256.92 M
	8242101	08/24/2021	JUNE PHONE BILL	71.84 M
	8242101	08/24/2021	JUNE PHONE BILL	35.92 M
	8242101	08/24/2021	JUNE PHONE BILL	1,031.24 M
	8242101	08/24/2021	JUNE PHONE BILL	148.16 M
	8242101	08/24/2021	JUNE PHONE BILL	692.98 M
	8242101	08/24/2021	GASCO 105L-176-0.6 PROPANE	251.49 M
	8242101	08/24/2021	SUBMERSIBLE SUMP/UTILITY PUMP	683.32 M
	8242101	08/24/2021	SCREEN PROTECTOR, WALL CHARGER	114.68 M
	8242101	08/24/2021	BREAKROOM SUPPLIES	245.93 M
	8242101	08/24/2021	SUN LIFEGUARD FLEXFIT HAT	84.63 M
	8242101	08/24/2021	TORQUE WRENCH	2,110.88 M
	8242101	08/24/2021	WOMANS BOOTS	151.50 M
	8242101	08/24/2021	BLINDS	170.79 M
	8242101	08/24/2021	GASKETS	714.63 M
	8242101	08/24/2021	SAFETY BOOTS	216.50 M
	8242101	08/24/2021	FILTERS FOR MAX-AIR 90 COMPRESSORS	191.86 M
	8242101	08/24/2021	NFPA 820, NFPA 70E	381.53 M
	8242101	08/24/2021	LINK BELT PILLOW BLOCK BALL BEARING UNIT	494.65 M
	8242101	08/24/2021	REXNORD LINK BELT 300 SERIES HEAVY DUTY PILLOW BLOCK BALL	989.30 M
	8242101	08/24/2021	MAINTENANCE MECHANIC I/III/III ADVERTISING	200.00 M
	8242101	08/24/2021	OPERATOR OIT ADVERTISING	200.00 M
Total U.S. BANK CARD DIVISION:				13,265.49
UNDERGROUND SERVICE ALERT				
	87385	08/18/2021	2021 Membership fee	150.00 M
	87403	08/18/2021	California state fee for regulatory costs. 209 tickets.	98.09 M
Total UNDERGROUND SERVICE ALERT:				248.09
UNIFIRST CORPORATION				
	87354	08/18/2021	UNIFORMS	117.29
	87354	08/18/2021	UNIFORMS	13.08
	87354	08/18/2021	UNIFORMS	65.85
	87354	08/18/2021	UNIFORMS	82.05
	87354	08/18/2021	UNIFORMS	25.96
	87354	08/18/2021	UNIFORMS	15.15
	87354	08/18/2021	UNIFORMS	117.29
	87354	08/18/2021	UNIFORMS	13.08
	87354	08/18/2021	UNIFORMS	65.85
	87354	08/18/2021	UNIFORMS	82.05
	87354	08/18/2021	UNIFORMS	12.67
	87354	08/18/2021	UNIFORMS	15.15
	87354	08/18/2021	UNIFORMS	119.97

Payee	Check Number	Check Issue Date	Description	Amount
	87354	08/18/2021	UNIFORMS	13.08
	87354	08/18/2021	UNIFORMS	72.87
	87354	08/18/2021	UNIFORMS	84.44
	87354	08/18/2021	UNIFORMS	25.96
	87354	08/18/2021	UNIFORMS	15.38
	87377	08/18/2021	UNIFORMS	117.29 M
	87377	08/18/2021	UNIFORMS	65.85 M
	87377	08/18/2021	UNIFORMS	13.08 M
	87377	08/18/2021	UNIFORMS	82.05 M
	87377	08/18/2021	UNIFORMS	25.96 M
	87377	08/18/2021	UNIFORMS	15.15 M
Total UNIFIRST CORPORATION:				1,276.55
UNITED PARCEL SERVICE, UPS				
	87371	08/18/2021	SHIPPING CHARGES	26.48 M
	87371	08/18/2021	SHIPPING CHARGES	185.42 M
Total UNITED PARCEL SERVICE, UPS:				211.90
UNIVAR USA INC.				
	87355	08/18/2021	METHANOL	13,014.36
	87355	08/18/2021	METHANOL	13,014.36
Total UNIVAR USA INC.:				26,028.72
VICKY LUFRANO				
	87356	08/18/2021	AUG CELL PHONE	42.80
	87356	08/18/2021	REIMB SHRM-CP CERT	100.00
	87356	08/18/2021	AUG CELL PHONE	42.80- V
	87356	08/18/2021	REIMB SHRM-CP CERT	100.00- V
	87412	08/18/2021	AUG CELL PHONE	18.04 M
	87412	08/18/2021	REIMB SHRM CP CERT FEES	100.00 M
Total VICKY LUFRANO:				118.04
VWR SCIENTIFIC INC				
	87373	08/18/2021	1N Sodium Carbonate	66.70 M
	87373	08/18/2021	Copper Sulfate 5 H2O	93.65 M
Total VWR SCIENTIFIC INC:				160.35
WESTERN NEVADA SUPPLY				
	87357	08/18/2021	4" Steel Blind Flange	70.67
	87392	08/18/2021	RESTOCK FINISH BLD #32 DRAIN PIPES	332.50 M
	87392	08/18/2021	RESTOCK FINISH BLD #32 DRAIN PIPES	47.98 M
Total WESTERN NEVADA SUPPLY:				451.15
WILEY, PRICE & RADULOVICH				
	87362	08/10/2021	JUNE FEES	53,013.10 M
	87419	08/23/2021	JULY FEES	49,024.00 M
Total WILEY, PRICE & RADULOVICH:				102,037.10
WORK WORLD				
	87358	08/18/2021	Keen Mt Vernon 6" Steel toe boot size 10 1/2	218.67

Payee	Check Number	Check Issue Date	Description	Amount
Total WORK WORLD:				218.67
ZONES INC				
	87359	08/18/2021	Yearly Symantec Software renewal	1,000.20
Total ZONES INC:				1,000.20
ZORO				
	87360	08/18/2021	Rothenberger Strap and Fittings Wrench #70240	112.79
	87360	08/18/2021	Deep Groove Ball Bearing, 38kd	51.92
	87360	08/18/2021	1/4" CPI x FNPT Brass Connector	213.04
	87360	08/18/2021	Chemical Cartridge, Bayonet, CL2	130.44
	87360	08/18/2021	Trash Grabber, Aluminum, 36"	61.42
	87360	08/18/2021	PLUG IN UTILITY PUMP HP1/6 115V	345.11
	87360	08/18/2021	Quick Link, 1/4", 880 LB	23.60
	87360	08/18/2021	3/16" Grade 30 Proof Coil Chain, 150'	164.47
	87360	08/18/2021	B58 V-Belt, Outside Length 61'	46.63
	87360	08/18/2021	Lotion Skin Cleanser, Refill for Bag in Box Soap Dispenser, pk 12	122.76
	87360	08/18/2021	P-70 Purple PVC Primer	53.00
	87360	08/18/2021	200W ED18 High Pressure Sodium Bulb	112.36
	87360	08/18/2021	Deep Groove Ball Bearing, 38kd	12.98
	87364	08/10/2021	GFCI Receptacle Tester	21.46 M
	87364	08/10/2021	Squeeze Type Uninsulated Die Cast Zinc - Cable Connector	153.73 M
Total ZORO:				1,625.71
Grand Totals:				862,725.35



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Crystal Sublet, Finance and Administrative Manager
Item: IV-2
Subject: Approval of financial statements

Background

Attached are the financial statements for the previous calendar month(s); each of which include (1) fund summaries, (2) end of month cash balances, (3) Local Agency Investment Fund (LAIF) statement, and (4) California Employers' Retiree Benefit Trust (CERBT) Fund statement.

Summaries of the expenditure and revenue activity are provided for Fund 10: General Fund; Fund 02: Wastewater Capital Reserve Fund; and Fund 06: Replacement, Rehabilitation and Upgrade Fund.

The end of month Combined Cash Investment table provides the end of month balances for all Agency cash accounts, which reconciles with Agency end of month fund balances.

The LAIF and CERBT statements provide a summary within the account.

Fiscal Impact

None.

Attachments

Report of financial statements.

Recommendation

Management and staff recommend approval of the financial statements.

Review Tracking

Submitted By: *Crystal A Sublet*
Crystal Sublet
Finance and Administrative Manager

Approved By: *LaRue Griffin*
LaRue Griffin
General Manager



Tahoe-Truckee Sanitation Agency
Fund 10: General Fund
Fiscal Year 2021 - 2022
Period Ending August 31, 2021

	Budget \$	Month \$	Month %	YTD \$	YTD %	Notes
REVENUE						
Income from Service Charge	13,287,000.00	1,183,826.08	8.9	1,259,165.02	9.5	1,2,3
Tax Revenue - Ad Valorem	3,958,000.00	132,597.65	3.4	0.00	0.0	2,3
Fund Interest	40,000.00	0.00	0.0	0.00	0.0	3,4
Other Revenue	15,000.00	994.13	6.6	5,411.17	36.1	3,5
Temporary Discharge	25,000.00	0.00	0.0	0.00	0.0	3
TOTAL REVENUE	17,325,000.00	1,317,417.86	7.6	1,264,576.19	7.3	
EXPENDITURE						
Salaries & Wages	5,599,400.00	394,446.13	7.0	1,137,921.15	20.3	6
Employee Benefits	3,817,000.00	254,115.52	6.7	779,016.29	20.4	6
Director Fees	7,600.00	0.00	0.0	0.00	0.0	
Vehicle	51,900.00	29.07	0.1	2,650.63	5.1	
CSRMA Insurance	375,000.00	0.00	0.0	206,960.54	55.2	7
Professional Memberships	44,700.00	202.00	0.5	1,826.00	4.1	
Agency Permits & Licenses	196,000.00	0.00	0.0	0.00	0.0	
Office Expense	455,000.00	15,114.35	3.3	26,792.95	5.9	
Contractual Services	2,204,800.00	95,436.66	4.3	207,458.64	9.4	
Professional Services	990,000.00	101,354.01	10.2	110,978.01	11.2	
Conferences & Training	116,500.00	0.00	0.0	787.00	0.7	
Uncollectable Accounts	0.00	0.00	0.0	0.00	0.0	
Utilities	1,010,200.00	83,446.32	8.3	137,726.26	13.6	
Supplies, Repairs & Maintenance	1,091,500.00	48,488.61	4.4	112,552.30	10.3	
TOTAL EXPENDITURE	15,959,600.00	992,632.67	6.2	2,724,669.77	17.1	
NET INCOME	1,365,400.00			(1,460,093.58)		
Unfunded Accrued Liability	1,044,000.00	0.00	0.0	1,023,078.00	98.0	8

*17% of the fiscal year has elapsed.

**This is an unaudited status report.

Notes:

- 1 – TTSA collects the majority of its Sewer Service Charges on the county property tax bills of Placer County, El Dorado County and Nevada County. The Sewer Service Charges are on the Teeter Schedule.
- 2 – Sewer Service Charges and Property Tax Revenue are net amounts of each County's billing fees. Teeter Schedule 55% - 1/2022, 40% 5/2022 and 5% 7/2022.
- 3 – All revenue is accrued at Fiscal Year-End according to accrual-based accounting method.
- 4 – Interest on LAIF balances is received and recorded quarterly (10/2021, 1/2022, 4/2022 and 7/2022).
- 5 – Other Revenue includes rebates, billings and surplus items sold. Currently there is \$2,210 in laboratory revenue and \$3,200 for a rebate from CSRMA.
- 6 – Timing difference: Payroll expense is recognized on pay date, except for Fiscal Year-End in which it is accrued according to the accrual-based accounting method. Payroll Fiscal YTD includes yearly vacation payouts.
- 7 – CSRMA insurance includes annual property insurance. Pooled liability insurance is expected later in the year.
- 8 – CalPERS UAL payment of \$1,023,078 was paid in July 2021.



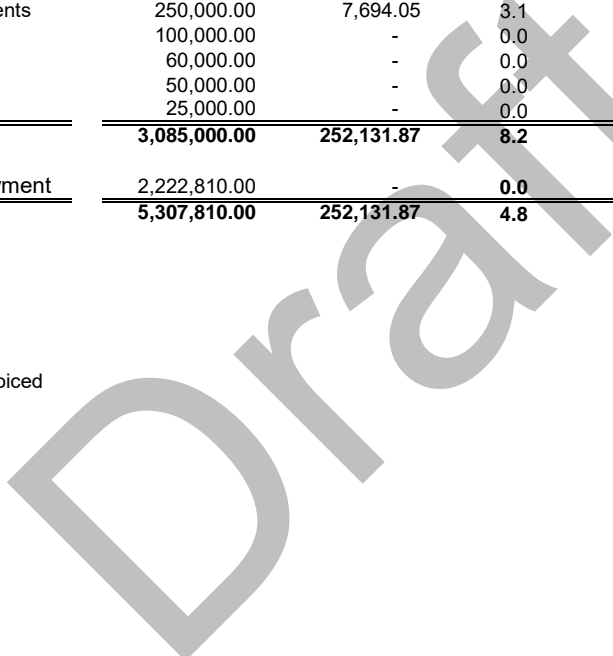
Tahoe-Truckee Sanitation Agency
 Fund 02: Wastewater Capital Reserve
 Fiscal Year 2021 - 2022
 Period Ending August 31, 2021

DESCRIPTION	Budget \$	Month \$	Month %	YTD \$	YTD %	Notes
Barscreens, Washers, Compactors	2,600,000.00	244,437.82	9.4	244,437.82	9.4	1
Digester & Plant Heating Improvements	250,000.00	7,694.05	3.1	7,694.05	3.1	1
Effluent Flow Meter Installation	100,000.00	-	0.0	-	0.0	2
Manlift	60,000.00	-	0.0	-	0.0	2
Influent Flow Meter Installation	50,000.00	-	0.0	-	0.0	3
Operations and Maintenance Carts	25,000.00	-	0.0	-	0.0	3
SUB TOTAL	3,085,000.00	252,131.87	8.2	252,131.87	8.2	
Allocation of 73.2% of Bond Payment	2,222,810.00	-	0.0	-	0.0	
TOTAL	5,307,810.00	252,131.87	4.8	252,131.87	4.8	

*17% of the fiscal year has elapsed

Notes:

- (1) Project started
- (2) Project started; no expenses invoiced
- (3) Project not started
- (4) Project completed
- (5) Project postponed to after FY22
- (6) Project cancelled





Tahoe-Truckee Sanitation Agency
 Fund 06: Replacement, Rehabilitation and Upgrade
 Fiscal Year 2021 - 2022
 Period Ending August 31, 2021

DESCRIPTION	Budget \$	Month \$	Month %	YTD \$	YTD %	Notes
Chlorine Scrubber Replacement	1,000,000.00	7,847.59	0.8	7,847.59	0.8	1
Plant Coating Improvements	500,000.00	79,270.68	15.9	79,287.84	15.9	1
Wasting Pumps Upgrade	350,000.00	0.00	0.0	0.00	0.0	6
Lime System Improvements	150,000.00	0.00	0.0	0.00	0.0	5
Facility Asphalt Sealing	100,000.00	0.00	0.0	0.00	0.0	2
Centrifuge Rebuild	50,000.00	0.00	0.0	0.00	0.0	3
SCADA Repeater Replacement	50,000.00	0.00	0.0	0.00	0.0	3
Telephone Upgrade	50,000.00	0.00	0.0	0.00	0.0	2
Arc Flash Study/Breaker Replacement	45,000.00	0.00	0.0	0.00	0.0	2
Filter Press Pump VFD Replacement	45,000.00	0.00	0.0	0.00	0.0	3
IT Server Replacement	40,000.00	0.00	0.0	0.00	0.0	2
Odorous Air VFD Replacement	35,000.00	0.00	0.0	0.00	0.0	3
Cake Discharge VFD Replacement	35,000.00	0.00	0.0	0.00	0.0	3
Polyblend Thickener	35,000.00	0.00	0.0	0.00	0.0	3
VFD Replacements	30,000.00	0.00	0.0	0.00	0.0	2
MPPS VFD	30,000.00	0.00	0.0	0.00	0.0	3
Lab Equipment Replacement	25,000.00	0.00	0.0	0.00	0.0	2
BNR Blower Replacement	25,000.00	0.00	0.0	34,512.03	138.0	4
Portable Welder Replacement	25,000.00	0.00	0.0	0.00	0.0	3
Vehicle Replacement*	0.00	0.00	0.0	9,938.93	0.0	4
Facilities Security System**	0.00	12,160.50	0.0	12,160.50	0.00	1
Chiller Replacement***	0.00	3,829.80	0.0	3,829.80	0.00	4
SUB TOTAL	2,620,000.00	103,108.57	3.9	147,576.69	5.6	
Allocation of 26.8% of Bond Payment	813,816.00	0.00	0.0	0.00	0.0	
TOTAL	3,433,816.00	103,108.57	3.0	147,576.69	4.3	

*17% of the fiscal year has elapsed

Notes:

- (1) Project started
- (2) Project started; no expenses invoiced
- (3) Project not started
- (4) Project completed
- (5) Project postponed to after FY22
- (6) Project cancelled

*Vehicle Replacement - Unit was budgeted for and expected to be received in FY21; however, the unit was not physically delivered or invoiced until FY22.

**Facilities Security System - Project is in process, was originally budgeted for FY21.

***Chiller Replacement - Project was mostly completed in FY21; however, field work was completed in FY22.

TAHOE-TRUCKEE SANITATION AGENCY
 COMBINED CASH INVESTMENT
 AUGUST 31, 2021

COMBINED CASH ACCOUNTS

99-00-0100-000	CASH - US BANK CHECKING	1,109,313.87
99-00-0101-000	CASH - USB SERVICE CHARGE	197,293.86
99-00-0102-000	CASH - US BANK TAX REV	412,024.66
99-00-0103-000	CASH - US BANK WWCRF	356,982.45
99-00-0104-000	CASH - WELLS FARGO PAYROLL	4,918.67
99-00-0105-000	CASH - WELLS FARGO INVESTMENTS	1,046,337.03
99-00-0106-000	CASH - PETTY CASH	600.00
99-00-0107-000	CASH - L.A.I.F.	37,972,824.67
		<hr/>
	TOTAL COMBINED CASH	41,100,295.21
99-00-0001-000	CASH ALLOCATED TO OTHER FUNDS	(41,100,295.21)
		<hr/>
	TOTAL UNALLOCATED CASH	<u>.00</u>

CASH ALLOCATION RECONCILIATION

2	ALLOCATION TO WASTEWATER CAPITAL RESERVE FUN	21,495,739.90
6	ALLOCATION TO R. R. & UPGRADE FUND	9,398,993.62
7	ALLOCATION TO EMERGENCY & CONTINGENCY FUND	7,270,732.02
10	ALLOCATION TO GENERAL FUND	2,934,829.67
		<hr/>
	TOTAL ALLOCATIONS TO OTHER FUNDS	41,100,295.21
	ALLOCATION FROM COMBINED CASH FUND - 99	(41,100,295.21)
		<hr/>
	ZERO PROOF IF ALLOCATIONS BALANCE	<u>.00</u>

[Investment Data](#)[My Account Profile](#)[Documentation/Forms](#)

Investment Allocation

Account: 5084675063 » Tahoe-Truckee Sanitation Agency

Investment Strategy	Unit Price	Number of Units	Balance
CERBT Strategy 1	22.894443	662,665.614	\$15,171,360.55
Total			\$15,171,360.55

[Download to Excel](#)

California State Treasurer
Fiona Ma, CPA



Local Agency Investment Fund
P.O. Box 942809
Sacramento, CA 94209-0001
(916) 653-3001

September 02, 2021

[LAIF Home](#)
[PMIA Average Monthly Yields](#)

TAHOE TRUCKEE SANITATION AGENCY

TREASURER
13720 BUTTERFIELD DRIVE
TRUCKEE, CA 96161

[Tran Type Definitions](#)

Account Number: 70-31-001

August 2021 Statement

Effective Date	Transaction Date	Tran Type	Confirm Number	Web Confirm Number	Authorized Caller	Amount
8/4/2021	8/4/2021	RD	1682518	1642727	MICHELLE MACKEY	360,000.00
8/4/2021	8/4/2021	RW	1682504	1642705	MICHELLE MACKEY	-1,000,000.00
8/10/2021	8/10/2021	RD	1682822	1643020	MICHELLE MACKEY	930,000.00
8/18/2021	8/18/2021	RW	1683302	1643511	DAWN DAVIS	-600,000.00
8/27/2021	8/26/2021	RW	1683857	1644070	MICHELLE MACKEY	-700,000.00

Account Summary

Total Deposit:	1,290,000.00	Beginning Balance:	38,982,824.67
Total Withdrawal:	-2,300,000.00	Ending Balance:	37,972,824.67



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Jay Parker, Engineering Manager
Item: IV-3
Subject: Approval of Progress Pay Estimate No. 1 for the 2021 Asphalt Sealing project

Background

The 2021 Asphalt Sealing project consists of providing two seal coats to the majority of existing plant asphalt pavement surfacing, routing and filling cracks with crack filler, and providing traffic stripes and pavement markings. During this pay period, the contractor completed all work on the project as detailed on Progress Pay Estimate No. 1.

Fiscal Impact

Withholding 5% for retention from Progress Pay Estimate No. 1 would yield a payment to the contractor of \$92,563.50.


Attachments

Progress Pay Estimate No. 1.

Recommendation

Management and staff recommend approval of Progress Pay Estimate No. 1 for the 2021 Asphalt Sealing project.

Review Tracking

Submitted By: 
Jay Parker
Engineering Manager

Approved By: 
LaRue Griffin
General Manager



**Tahoe-Truckee Sanitation Agency
2021 Asphalt Sealing Project**

**GL Code: 06-09-1500-024
GL Description: Facility Asphalt Sealing**

**Progress Pay Estimate No. 1
July 29, 2021 to August 28, 2021**

OWNER:
Tahoe-Truckee Sanitation Agency
13720 Butterfield Drive
Truckee, CA 96161

CONTRACTOR:
Blacktop Sealing & Striping, Inc.
P.O. Box 5121
Tahoe City, CA 96145

ITEM NO.	BID ITEM DESCRIPTION	CONTRACT QUANTITY	UNIT	UNIT PRICE	CONTRACT TOTAL	PERCENTAGE	TOTAL EARNED
1	Mobilization	1	LUMP SUM	N/A	\$ 2,045.00	100.00%	\$2,045.00
2	Demobilization	1	LUMP SUM	N/A	\$ 2,045.00	100.00%	\$2,045.00
3	Lump sum for removing and disposing of deleterious material from the asphalt pavement	1	LUMP SUM	N/A	\$ 20,131.00	100.00%	\$20,131.00
4	Unit cost for preparation of cracks	3,400	L.F.	\$ 0.78	\$ 2,652.00	100.00%	\$2,652.00
5	Unit cost for crack filling	29,200	L.F.	\$ 0.87	\$ 25,404.00	100.00%	\$25,404.00
6	Lump sum for applying two (2) seal coats on the asphalt pavement	1	LUMP SUM	N/A	\$ 40,870.00	100.00%	\$40,870.00
7	Lump sum for applying traffic striping and pavement markings	1	LUMP SUM	N/A	\$ 4,353.00	100.00%	\$4,353.00
	Change Order 1	1	LUMP SUM	N/A	\$ (64.74)	100.00%	\$ (64.74)
TOTAL					\$97,435.26		\$97,435.26

TOTAL EARNED TO DATE:	\$97,435.26
5% TOTAL RETENTION TO DATE:	\$4,871.76
TOTAL AMOUNT PREVIOUSLY PAID:	\$0.00
TOTAL AMOUNT DUE CONTRACTOR:	\$92,563.50

ACCEPTED BY:
Blacktop Sealing & Striping, Inc.

BY: *[Signature]*
DATE: 9/2/21

APPROVED BY:
Tahoe-Truckee Sanitation Agency

BY: _____
DATE: _____



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Jay Parker, Engineering Manager
Item: IV-4
Subject: Approval of Progress Pay Estimate No. 3 for the 2020 Digital Scanning of Sewer Lines project

Background

The 2020 Digital Scanning of Sewer Lines project includes the work to digitally scan two schedules (Schedules V and VI) of the Truckee River Interceptor (TRI), which spans the distance between the open land to the west of South River Street and the Water Reclamation Plant. The total length to be scanned is approximately 30,200 feet in length and consists of RCP piping ranging in size from 18 to 42 inches diameter.

The contract documents state that the Agency will pay the contractor five percent (5%) of the total bid price upon submission of a complete set of approved shop drawing submittals, forty five percent (45%) upon completion of all required inspection work, and fifty percent (50%) upon delivery of a complete set of deliverables that are in full conformance with all specified requirements. During this pay period, the contractor completed all work on the project as detailed on Progress Pay Estimate No. 3.

Fiscal Impact

Withholding 5% for retention from Progress Pay Estimate No. 3 would yield a payment to the contractor of \$40,830.91.


Attachments

Progress Pay Estimate No. 3.

Recommendation

Management and staff recommend approval of Progress Pay Estimate No. 3 for the 2020 Digital Scanning of Sewer Lines project.

Review Tracking

Submitted By: 
Jay Parker
Engineering Manager

Approved By: 
LaRue Griffin
General Manager



Tahoe-Truckee Sanitation Agency
2020 Digital Scanning of Sewer Lines

GL Code: 10-02-2504
GL Description: Facilities Maintenance

Progress Pay Estimate No. 3
October 29th, 2020 to August 28th, 2021

OWNER:
Tahoe-Truckee Sanitation Agency
13720 Butterfield Drive
Truckee, CA 96161

CONTRACTOR:
Pipe and Plant Solutions, Inc.
225 3rd Street
Oakland, CA 94607

ITEM NO.	BID ITEM DESCRIPTION	CONTRACT QUANTITY	UNIT	UNIT PRICE	CONTRACT TOTAL	PERCENTAGE	TOTAL EARNED
1	All labor and materials associated with the Digital Scanning of Sewer Lines Project shown and specified, excluding work specified in Section 6.01, Technical Specifications, Additive Bid Alternate	30,200	Lineal Feet	\$ 2.61	\$ 78,822.00	100%	\$78,822.00
2	All labor and materials associated with the Digital Scanning of Sewer Lines Project shown and specified, only for work specified in Section 6.01, Technical Specifications, Additive Bid Alternate	30,200	Lineal Feet	\$ 0.25	\$ 7,550.00	100%	\$7,550.00
CM No. 1	Contract Modification No. 1	8	Hours	\$ (34.57)	\$ (276.56)	100%	(\$276.56)
CM No. 2	Contract Modification No. 2	N/A	N/A	\$ 0.00	\$ 0.00	100%	\$0.00
CM No. 3	Contract Modification No. 3	1	Lump Sum	\$ (3,603.60)	\$ (3,603.60)	100%	(\$3,603.60)
TOTAL					\$ 82,491.84		\$82,491.84

TOTAL EARNED TO DATE: \$82,491.84
 5% TOTAL RETENTION TO DATE: \$4,124.59
 TOTAL AMOUNT PREVIOUSLY PAID: \$37,536.34
TOTAL AMOUNT DUE CONTRACTOR: \$40,830.91

ACCEPTED BY:
Pipe and Plant Solutions, Inc.
BY: William Gilmartin IV, President

DATE:
09/02/2021

APPROVED BY:
Tahoe-Truckee Sanitation Agency
BY:

DATE:



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Jay Parker, Engineering Manager
Item: IV-5
Subject: Approval of Change Order No. 2 for the 2021 Plant Painting project

Background

The 2021 Plant Painting project builds on the recent painting projects of 2016, 2018, and 2020. These projects entail repairing areas of the water reclamation plant that are corroding using a strategic phased approach to extend the expected service life of the various facilities involved. The focus of this phase is to rehabilitate and recoat Secondary Clarifier No. 2 and Stripper Basin No. 58.

This Change Order No. 2 provides compensation for unforeseen and additional work required on the contract, as follows:

- Perform unforeseen repairs to clarifier mechanism
- Implement bird deterrent measures
- Reduce hardware quantities
- Increase in caulking quantities

Change Order No. 2 also provides a time extension to the Contractor to accommodate this additional work and to provide for optimum work sequencing. Because the amount exceeds the General Manager's approval authority of up to \$25,000, the Board is required to approve the change order.

Fiscal Impact

\$41,771.50


Attachments

Change Order No. 2

Recommendation

Management and staff recommend approval of Change Order No. 2 for the 2021 Plant Painting project.

Review Tracking

Submitted By: 
Jay Parker
Engineering Manager

Approved By: 
LaRue Griffin
General Manager



TAHOE-TRUCKEE SANITATION AGENCY

A Public Agency
 13720 Butterfield Drive
 TRUCKEE, CALIFORNIA 96161
 (530) 587-2525 • FAX (530) 587-5840

Directors

Dale Cox: President
Dan Wilkins: Vice President
David Smelser
Blake Tresan
S. Lane Lewis

General Manager

LaRue Griffin

CONTRACT MODIFICATION NO. 2 (Change Order)

The following additions, deletions or revisions to the Contract Documents for the 2021 Plant Painting Project by and between the Tahoe-Truckee Sanitation Agency and Euro Style Management dated April 7th, 2021 have been ordered and authorized:

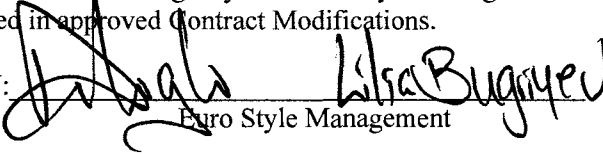
ITEM	DESCRIPTION	UNIT PRICE	QUANTITY	COMPENSATION BASIS	COST
1	Revise Part 1 Bidding Requirements, Paragraph 1.1: CHANGE "August 20 th , 2021" to "October 8 th , 2021".	N/A	N/A	N/A	\$0.00
2	Revise Part 2 Contract Forms, Paragraph 2.1.5: CHANGE "August 20 th , 2021" to "October 8 th , 2021".	N/A	N/A	N/A	\$0.00
3	Revise Part 6, Technical Specifications, Section 01 00 00, General Requirements, Paragraph 1.7.C.1: CHANGE "August 20 th , 2021" to "October 8 th , 2021"	N/A	N/A	N/A	\$0.00
4	Revise Part 6, Technical Specifications, Section 01 00 00, General Requirements, Paragraph 1.7.F.2.a.1): DELETE "Work may begin no sooner than May 17 th , 2021 and shall be completed before August 20 th , 2021" and REPLACE with "Work may begin no sooner than May 17 th , 2021 and shall be completed before October 8 th , 2021."	N/A	N/A	N/A	\$0.00
5	Revise Part 6, Technical Specifications, Section 01 00 00, General Requirements, Paragraph 1.7.F.2.b.1): DELETE "Work may begin no sooner than June 2 nd , 2021 and shall be completed before July 16 th , 2021" and REPLACE with "Work may begin no sooner than June 2 nd , 2021 and shall be completed before October 8 th , 2021."	N/A	N/A	N/A	\$0.00

ITEM	DESCRIPTION	UNIT PRICE	QUANTITY	COMPENSATION BASIS	COST
6	Additional work to perform welding repairs as directed by Agency in Secondary Clarifier No. 2 to 125% of the original unit price amount per Part 5 General Conditions, Paragraph 5.3.13.	HOURS	1	\$200.00	\$200.00
7	Additional work to perform welding repairs as directed by Agency in Secondary Clarifier No. 2 on a cost plus basis of payment per Part 5 General Conditions, Paragraph 5.3.9.	LUMP SUM	1	\$27,687.75	\$27,687.75
8	Additional work to perform welding repairs as directed by Agency in Stripper Basin No. 58 to 125% of the original unit price amount per Part 5 General Conditions, Paragraph 5.3.13.	HOURS	1	\$200.00	\$200.00
9	Additional work to perform welding repairs as directed by Agency in Stripper Basin No. 58 on a cost plus basis of payment per Part 5 General Conditions, Paragraph 5.3.9.	LUMP SUM	1	\$3,176.59	\$3,176.59
10	Additional work to perform bird deterrent measures as directed by Agency in Stripper Basin No. 58 on a cost plus basis of payment per Part 5 General Conditions, Paragraph 5.3.9.	LUMP SUM	1	\$817.74	\$817.74
11	Additional work to perform reblasting of steel in areas exposed to moisture from water seepage as directed by Agency in Stripper Basin No. 58 on a cost plus basis of payment per Part 5 General Conditions, Paragraph 5.3.9.	LUMP SUM	1	\$10,623.82	\$10,623.82
12	Reduction of bolts and nuts quantity replaced on the inner and outer influent wells in Stripper Basin No. 58 from quantity 216 to 96 (a reduction of 120 bolts and nuts) at \$30.00/each for a total reduction of \$3600.00.	EA	(120)	\$30.00	(\$3,600.00)
13	Increase of caulking quantity in Stripper Basin No. 58 from 100 Linear Feet (L.F.) to 266.6 L.F. (an increase of 166.6 L.F.) at \$16.00/L.F. for a total increase of \$2,665.60.	L.F.	166.6	\$16.00	\$2,665.60
Total Cost for Items 1 through 13					\$41,771.50

ORIGINAL CONTRACT AMOUNT: \$452,540.00
CONTRACT MODIFICATION NO. #1 AMOUNT: \$ 7,819.46
CONTRACT MODIFICATION NO. #2 AMOUNT: \$ 41,771.50
REVISED CONTRACT AMOUNT: \$502,130.96

CONTRACT TIME ADJUSTMENT: **Revised as indicated herein.**

All terms and conditions stipulated in the Contract Documents for the 2021 Plant Painting Project by and between the Tahoe-Truckee Sanitation Agency and Euro Style Management dated April 7th, 2021 are incorporated herein, except as provided in approved Contract Modifications.

ACCEPTED BY:  9/1/21
Euro Style Management Date

APPROVED BY: _____ Date
Tahoe-Truckee Sanitation Agency



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Jay Parker, Engineering Manager
Item: IV-6
Subject: Approval of Progress Pay Estimate No. 4 for the 2021 Plant Painting project

Background

The 2021 Plant Painting project builds on the recent painting projects of 2016, 2018, and 2020. These projects entail repairing areas of the water reclamation plant that are corroding using a strategic phased approach to extend the expected service life of the various facilities involved. The focus of this phase is to rehabilitate and recoat Secondary Clarifier No. 2 and Stripper Basin No. 58.

Through this pay period, the contractor completed approximately 75% of the work as detailed on Progress Pay Estimate No. 4.

Fiscal Impact

Withholding 5% for retention from Progress Pay Estimate No. 4 would yield a payment to the contractor of \$208,906.42.


Attachments

Progress Pay Estimate No. 4.

Recommendation

Management and staff recommend approval of Progress Pay Estimate No. 4 for the 2021 Plant Painting project.

Review Tracking

Submitted By: 
Jay Parker
Engineering Manager

Approved By: 
LaRue Griffin
General Manager



**Tahoe-Truckee Sanitation Agency
2021 Plant Painting Project**

GL Code: 06-09-15001

GL Description: Plant Coating Improvements

Progress Pay Estimate No. 4

July 29, 2021 to August 28, 2021

OWNER:

Tahoe-Truckee Sanitation Agency
13720 Butterfield Drive
Truckee, CA 96161

CONTRACTOR:

Euro Style Management
3600 Madison Ave #51B
North Highlands, CA 95660

ITEM NO.	BID ITEM DESCRIPTION	UNIT PRICE	CONTRACT QUANTITY	UNIT	CONTRACT TOTAL	PERCENTAGE	TOTAL EARNED
1	General: The total lump sum, including all labor, materials, equipment, and tools for mobilization.	\$20,000.00	1	LUMP SUM	\$20,000.00	100.00%	\$20,000.00
2	General: The total lump sum, including all labor, materials, equipment, and tools for demobilization.	\$10,000.00	1	LUMP SUM	\$10,000.00	0.00%	\$0.00
3	Work Area #1, Stripper Basin No. 58: The total lump sum, including all labor, materials, equipment, and tools to remove and dispose of the existing scale and surface contamination from items specified to be coated in Stripper Basin No. 58.	\$6,000.00	1	LUMP SUM	\$6,000.00	100.00%	\$6,000.00
4	Work Area #1, Stripper Basin No. 58: The total lump sum for all labor, materials, equipment and tools to remove, dispose of, replace, and coat two (2) existing 12" diameter pipes and related fittings in Stripper Basin No. 58; limits of removal as shown in the contract drawings.	\$8,000.00	1	LUMP SUM	\$8,000.00	0.00%	\$0.00
5	Work Area #1, Stripper Basin No. 58: The total lump sum for all labor, materials, equipment, and tools to install dust containment system before the start of work and removal after completion of work in Stripper Basin No. 58.	\$40,000.00	1	LUMP SUM	\$40,000.00	100.00%	\$40,000.00
6	Work Area #1, Stripper Basin No. 58: The total lump sum, including all labor, materials, equipment, and tools to perform inspection blast on areas where the coating has failed in Stripper Basin No. 58.	\$4,000.00	1	LUMP SUM	\$4,000.00	100.00%	\$4,000.00
7A	Work Area #1, Stripper Basin No. 58: Perform welding repairs as directed by Agency. This bid item shall include four (4) hours of welding and \$250 for material (see Technical Specifications, Section 05 05 00 for more information).	\$200.00	4	HOURS	\$800.00	100.00%	\$800.00
7B		\$250.00	1	LUMP SUM	\$250.00	100.00%	\$250.00
8	Work Area #1, Stripper Basin No. 58: The unit price per hour for grinding work in Stripper Basin No. 58.	\$80.00	6	HOURS	\$480.00	100.00%	\$480.00
9	Work Area #1, Stripper Basin No. 58: The unit price to replace bolts and nuts on the inner and outer influent wells in Stripper Basin No. 58 and as described in the contract documents.	\$30.00	216	EACH	\$6,480.00	100.00%	\$6,480.00
10	Work Area #1, Stripper Basin No. 58: The total lump sum, including all labor, materials, equipment, and tools for surface preparation to remove and dispose of the existing coating from specified items in Stripper Basin No. 58.	\$68,000.00	1	LUMP SUM	\$68,000.00	100.00%	\$68,000.00
11	Work Area #1, Stripper Basin No. 58: The total lump sum, including all labor materials, equipment, and tools to apply the specified coatings to specified items in Stripper Basin No. 58.	\$40,000.00	1	LUMP SUM	\$40,000.00	95.00%	\$38,000.00
12	Work Area #1, Stripper Basin No. 58: The unit price per linear foot for caulking in Stripper Basin No. 58.	\$16.00	100	L.F.	\$1,600.00	100.00%	\$1,600.00
13	Work Area #1, Stripper Basin No. 58: Extended two (2) year warranty for coating systems applied by contractor in Stripper Basin No. 58 and in accordance with the Contract Documents.	\$5,000.00	1	LUMP SUM	\$5,000.00	0.00%	\$0.00
14	Work Area #2, Secondary Clarifier No. 2: The total lump sum, including all labor, materials, equipment, and tools to remove and dispose of the existing scale and surface contamination from items specified to be coated in Secondary Clarifier No. 2.	\$6,000.00	1	LUMP SUM	\$6,000.00	100.00%	\$6,000.00

ITEM NO.	BID ITEM DESCRIPTION	UNIT PRICE	CONTRACT QUANTITY	UNIT	CONTRACT TOTAL	PERCENTAGE	TOTAL EARNED
15	Work Area #2, Secondary Clarifier No. 2: The total lump sum for all labor, materials, equipment, and tools to install dust containment system before the start of work and removal after completion of work in Secondary Clarifier No. 2.	\$48,000.00	1	LUMP SUM	\$48,000.00	50.00%	\$24,000.00
16	Work Area #2, Secondary Clarifier No. 2: The total lump sum, including all labor, materials, equipment, and tools to perform inspection blast on areas where the coating has failed in Secondary Clarifier No. 2.	\$9,800.00	1	LUMP SUM	\$9,800.00	100.00%	\$9,800.00
17A	Work Area #2, Secondary Clarifier No. 2: Perform welding repairs as directed by Agency. This bid item shall include four (4) hours of welding and \$250 for material (see Technical Specifications, Section 05 05 00 for more information).	\$200.00	4	HOURS	\$800.00	100.00%	\$800.00
17B		\$250.00	1	LUMP SUM	\$250.00	100.00%	\$250.00
18	Work Area #2, Secondary Clarifier No. 2: The unit price per hour for grinding work in Secondary Clarifier No. 2.	\$80.00	6	HOURS	\$480.00	100.00%	\$480.00
19	Work Area #2, Secondary Clarifier No. 2: The total lump sum, including all labor, materials, equipment, and tools for surface preparation to remove and dispose of the existing coating from items specified in Secondary Clarifier No. 2.	\$110,000.00	1	LUMP SUM	\$110,000.00	100.00%	\$110,000.00
20	Work Area #2, Secondary Clarifier No. 2: The total lump sum, including all labor, materials, equipment, and tools to apply the specified coatings to specified items in Secondary Clarifier No. 2.	\$60,000.00	1	LUMP SUM	\$60,000.00	0.00%	\$0.00
21	Work Area #2, Secondary Clarifier No. 2: The unit price per linear foot for caulking in Secondary Clarifier No. 2.	\$16.00	100	L.F.	\$1,600.00	0.00%	\$0.00
22	Work Area #2, Secondary Clarifier No. 2: Extended two (2) year warranty for coating systems applied by contractor in Secondary Clarifier No. 2 and all-in accordance with the Contract Documents.	\$5,000.00	1	LUMP SUM	\$5,000.00	0.00%	\$0.00
CM No. 1	Contract Modification No. 1	\$7,819.46	1	LUMP SUM	\$7,819.46	100.00%	\$7,819.46
CM No. 2	Contract Modification No. 2	\$41,771.50	1	LUMP SUM	\$41,771.50	100.00%	\$41,771.50
TOTAL					\$502,130.96		\$386,530.96

TOTAL EARNED TO DATE:	\$386,530.96
5% TOTAL RETENTION TO DATE:	\$19,326.55
TOTAL AMOUNT PREVIOUSLY PAID:	\$158,297.99
TOTAL AMOUNT DUE CONTRACTOR:	\$208,906.42

ACCEPTED BY:
Euro Style Management

BY:

DATE:

[Signature]
9/1/21

APPROVED BY:
Tahoe-Truckee Sanitation Agency

BY:

DATE:



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Jay Parker, Engineering Manager
Item: IV-7
Subject: Approval of Progress Pay Estimate No. 5 for the 2020 Headworks Improvements project

Background

The 2020 Headworks Improvements project entails retrofitting the existing headworks facility with new mechanical screens and a set of new redundant washer-compactor units. Also, a new flow control structure is being constructed upstream of the headwork facility complete with flow control gates, interconnecting piping, and other features. This structure will enhance the ability of the Agency's Operations Department to fully combine, split, and shave all raw sewage flows and recycle streams as they enter the plant.

Through this pay period, the contractor completed approximately 50% of the work as detailed on Progress Pay Estimate No. 5.

Fiscal Impact

Withholding 5% for retention from Progress Pay Estimate No. 5 would yield a payment to the contractor of \$308,429.43.


Attachments

Progress Pay Estimate No. 5.

Recommendation

Management and staff recommend approval of Progress Pay Estimate No. 5 for the 2020 Headworks Improvements project.

Review Tracking

Submitted By: 
Jay Parker
Engineering Manager

Approved By: 
LaRue Griffin
General Manager



Tahoe-Truckee Sanitation Agency
2020 Headworks Improvements Project
GL Code: 02-10-1700-001
GL Description: Barscreens, Washers, Compactors

Progress Pay Estimate No. 5

July 29, 2021 to August 28, 2021

OWNER:

Tahoe-Truckee Sanitation Agency
 13720 Butterfield Drive
 Truckee, CA 96161

CONTRACTOR:

K.G. Walters Construction Co., Inc.
 P.O. Box 4359
 Santa Rosa, CA 95403

A	B	C	D	E	F
Item No.	Description of Work	Schedule Value	Total Completed and Stored to Date	% (D/C)	Retainage

BID ITEM 1 UPSTREAM DIVERSION STRUCTURE

2	Testing	\$ 2,790.00	\$ 2,790.00	100.00%	\$ 139.50
3	01 57 28 Mobilize Bypass Materials	\$ 6,259.00	\$ 6,259.00	100.00%	\$ 312.95
4	03 30 01 - Fabricate & Deliver Rebar	\$ 7,000.00	\$ 7,000.00	100.00%	\$ 350.00
5	05 12 00 - Fabricate & Deliver Metals	\$ -	\$ -	100.00%	\$ -
6	33 05 01.07 - Fabricate & Deliver RCP	\$ 12,979.70	\$ 12,979.70	100.00%	\$ 648.99
7	35 20 16.25 - Fabricate & Deliver Slide Gates	\$ 8,660.00	\$ 8,660.00	100.00%	\$ 433.00
8	Onsite Mobilization 5/3/21	\$ 12,500.00	\$ 12,500.00	100.00%	\$ 625.00
9	Pothole	\$ 1,500.00	\$ 1,500.00	100.00%	\$ 75.00
10	Remove Site Surfacing for Excavation	\$ 2,500.00	\$ 2,500.00	100.00%	\$ 125.00
11	Support 33" RS, Excavate for Structure, prep subgrade	\$ 28,000.00	\$ 28,000.00	100.00%	\$ 1,400.00
12	Rebar for UDS Slab	\$ -	\$ -	100.00%	\$ -
13	Construct UDS Slab	\$ 12,000.00	\$ 12,000.00	100.00%	\$ 600.00
14	Form Walls @ UDS - Set Wall Spoil	\$ 20,000.00	\$ 20,000.00	100.00%	\$ 1,000.00
15	Wall Rebar @ UDS	\$ -	\$ -	100.00%	\$ -
16	Cast Walls @ UDS	\$ 15,500.00	\$ 15,500.00	100.00%	\$ 775.00
17	Strip Walls @ UDS	\$ 4,500.00	\$ 4,500.00	100.00%	\$ 225.00
18	Form Deck @ UDS	\$ 10,000.00	\$ 10,000.00	100.00%	\$ 500.00
19	Set Hatch/Metals in UDS Deck	\$ 2,500.00	\$ 2,500.00	100.00%	\$ 125.00
20	Cast Deck @ UDS	\$ 7,000.00	\$ 7,000.00	100.00%	\$ 350.00
21	Strip Deck @ UDS	\$ 4,000.00	\$ 4,000.00	100.00%	\$ 200.00
22	Plug & Patch UDS	\$ 3,500.00	\$ 3,500.00	100.00%	\$ 175.00
23	Shutdown 36" RS & Install Temp Bulkhead in PDS	\$ 8,000.00	\$ 8,000.00	100.00%	\$ 400.00
24	Demo Wall section of PDS	\$ 4,500.00	\$ 4,500.00	100.00%	\$ 225.00
25	Install new 36" between UDS and PDS	\$ 15,000.00	\$ 15,000.00	100.00%	\$ 750.00
26	Construct Pipe Collar @ PDS	\$ 15,000.00	\$ 15,000.00	100.00%	\$ 750.00

27	Grout Flowline @ UDS	\$ 4,000.00	\$ 4,000.00	100.00%	\$ 200.00
28	Install Gates and Frames at UDS	\$ 10,000.00	\$ 10,000.00	100.00%	\$ 500.00
29	Install Bypass System	\$ 11,656.40	\$ 11,656.40	100.00%	\$ 582.82
30	Cut out section of 33" RS, Remove Bulkhead @ PDS	\$ 5,000.00	\$ 5,000.00	100.00%	\$ 250.00
31	Backfill 36" RS & UDS	\$ 7,000.00	\$ 7,000.00	100.00%	\$ 350.00
32	Restore Upstream Diversion Structure site surfacing	\$ 7,000.00	\$ 7,000.00	100.00%	\$ 350.00
33	Punchlist	\$ 1,654.90	\$ -		\$ -

BID ITEM 2 HEADWORKS BUILDING

35	Testing	\$ 14,220.00	\$ 10,665.00	75.00%	\$ 533.25
36	03 30 01 - Fabricate & Deliver Rebar	\$ 10,800.00	\$ 9,180.00	85.00%	\$ 459.00
37	05 12 00 - Fabricate & Deliver Metals	\$ 71,925.63	\$ 64,733.07	90.00%	\$ 3,236.65
38	08 11 00 - Fabricate & Deliver HM Doors	\$ 13,801.88	\$ 10,351.41	75.00%	\$ 517.57
39	08 30 00 - Fabricate & Deliver OH Door	\$ 14,515.00	\$ -		\$ -
40	08 41 13 - Fabricate & Deliver Windows	\$ 3,744.00	\$ 3,744.00	100.00%	\$ 187.20
41	08 45 00 - Fabricate & Deliver Skylight Assembly	\$ 32,523.00	\$ -		\$ -
42	23 31 16.16 - Fabricate & Deliver FRP Ductwork	\$ 76,000.00	\$ -		\$ -
43	23 34 02 - Fabricate & Deliver HVAC	\$ 88,000.00	\$ -		\$ -
44	35 20 16.25 - Fabricate & Deliver Slide Gates	\$ 17,320.00	\$ 12,990.00	75.00%	\$ 649.50
45	40 27 00 - Fabricate & Deliver Process Pipe	\$ 14,487.78	\$ 10,865.84	75.00%	\$ 543.29
46	44 42 25.02 - Fabricate & Deliver Pre-Engineered Aluminum Covers	\$ 18,483.69	\$ -		\$ -
47	44 42 30 - Fabricate & Deliver Screening System	\$ 585,281.77	\$ 138,126.50	23.60%	\$ 6,906.32
48	Onsite Mobilization 5/3/21	\$ 110,950.00	\$ 110,950.00	100.00%	\$ 5,547.50
49	SJE Mobilization	\$ 20,000.00	\$ 20,000.00	100.00%	\$ 1,000.00
50	JLCS Mobilization	\$ 4,500.00	\$ -		\$ -
51	Saw-Cut & Demo AC	\$ 7,000.00	\$ 7,000.00	100.00%	\$ 350.00
52	Pothole 8" TWAS & utilities	\$ 5,000.00	\$ 5,000.00	100.00%	\$ 250.00
53	Relocate 8" TWAS	\$ 37,000.00	\$ 37,000.00	100.00%	\$ 1,850.00
54	Demo Existing Stair and landings	\$ 10,070.00	\$ 10,070.00	100.00%	\$ 503.50
55	Excavate for Building Extension & prep subgrade	\$ 38,000.00	\$ 38,000.00	100.00%	\$ 1,900.00
56	Form Masonry Wall Footing	\$ 24,000.00	\$ 24,000.00	100.00%	\$ 1,200.00
57	Rebar for Masonry Wall Footing	\$ -	\$ -	100.00%	\$ -
58	Cast Masonry Wall Footing	\$ 18,000.00	\$ 18,000.00	100.00%	\$ 900.00
59	Masonry Wall to Above Grade	\$ -	\$ -	100.00%	\$ -
60	Backfill Masonry Wall to Subgrade	\$ 32,000.00	\$ 32,000.00	100.00%	\$ 1,600.00
61	Underslab Drain Piping to Existing Channel	\$ 16,000.00	\$ 16,000.00	100.00%	\$ 800.00
62	Underslab Electrical	\$ 40,000.00	\$ 40,000.00	100.00%	\$ 2,000.00
63	Prep Slab Subgrade - Cast Post Ftg.	\$ 25,000.00	\$ 25,000.00	100.00%	\$ 1,250.00
64	Rebar for New Building Slab	\$ -	\$ -	100.00%	\$ -
65	Cast & Finish New Building Slab	\$ 20,000.00	\$ 20,000.00	100.00%	\$ 1,000.00
66	Complete Masonry Walls	\$ -	\$ -	100.00%	\$ -
67	Install Metals in Masonry Wall	\$ 18,000.00	\$ -		\$ -

68	Support Existing Roof Structure	\$ 50,000.00	\$ 37,500.00	75.00%	\$ 1,875.00
69	Demo Existing Roof	\$ 25,000.00	\$ 6,250.00	25.00%	\$ 312.50
70	Demo Masonry Wall	\$ 12,000.00	\$ 12,000.00	100.00%	\$ 600.00
71	Install New Roof Framing, grout beam pockets	\$ 50,000.00	\$ 45,000.00	90.00%	\$ 2,250.00
72	Metal Deck at Roofing	\$ 18,000.00	\$ -		\$ -
73	Lead Abatement	\$ 2,996.00	\$ 2,996.00	100.00%	\$ 149.80
74	Masonry Wall Coating	\$ 22,550.00	\$ -		\$ -
75	Install New Roof Curb	\$ 4,000.00	\$ -		\$ -
76	Insulation at top of Masonry Wall	\$ 5,591.00	\$ -		\$ -
77	Install New Roof Drain Piping	\$ 9,000.00	\$ -		\$ -
78	Install New Roof Membrane	\$ 26,898.00	\$ -		\$ -
79	Install Fascia Panels	\$ 26,500.00	\$ -		\$ -
80	Install OH Door	\$ -	\$ -		\$ -
81	Install Windows	\$ -	\$ -	100.00%	\$ -
82	Install New/Replaced Man Doors	\$ 10,000.00	\$ 2,000.00	20.00%	\$ 100.00
83	Rough in Electrical above grade	\$ 95,000.00	\$ 60,942.50	64.15%	\$ 3,047.13
84	Install New Electrical Gear	\$ 105,000.00	\$ 78,750.00	75.00%	\$ 3,937.50
85	Pull Wires & Test	\$ 17,000.00	\$ -		\$ -
86	Furnish & Install Lighting	\$ 20,000.00	\$ 9,564.00	47.82%	\$ 478.20
87	Electrical Start-Up & Testing	\$ 10,000.00	\$ -		\$ -
88	Demolish Existing Channel Features	\$ 20,000.00	\$ -		\$ -
89	Install New Slide & Stop Gates @ West Channel	\$ 7,000.00	\$ -		\$ -
90	Install New West Screen	\$ 15,000.00	\$ -		\$ -
91	Install New Washer Compactors	\$ 15,000.00	\$ -		\$ -
92	Install New Sluice and Tie into washers & screen	\$ 5,000.00	\$ -		\$ -
93	Modify 2W piping	\$ 8,000.00	\$ -		\$ -
94	Start-Up & Test New Screening System	\$ 1,000.00	\$ -		\$ -
95	Isolate and Clean East Channels	\$ 1,500.00	\$ -		\$ -
96	Remove Existing Screens, Conveyors & Appurtenances	\$ 17,000.00	\$ -		\$ -
97	Demo East Channel Appurtenances	\$ 15,000.00	\$ -		\$ -
98	East Channel Concrete Mods	\$ 38,000.00	\$ -		\$ -
99	Install New Slide & Stop Gates	\$ 7,000.00	\$ -		\$ -
100	Extend Sluice to East Channel	\$ 3,000.00	\$ -		\$ -
101	Install New East Screen	\$ 12,000.00	\$ -		\$ -
102	Install Pre-Engineered Aluminum Covers	\$ 10,000.00	\$ -		\$ -
103	Start-UP & Test East Screen	\$ 1,000.00	\$ -		\$ -
104	Prep Subgrade for Landings & Paving	\$ 10,000.00	\$ 10,000.00	100.00%	\$ 500.00
105	Form & Cast Landings	\$ 19,000.00	\$ 19,000.00	100.00%	\$ 950.00
106	Install Metal Stair & Landing	\$ 10,000.00	\$ 9,000.00	90.00%	\$ 450.00
107	Install Ladder	\$ 4,500.00	\$ -		\$ -
108	Install Handrail	\$ 6,000.00	\$ -		\$ -
109	Core Hole For OA Piping	\$ 1,500.00	\$ -		\$ -
110	Install OA pipe & Supports along exterior wall	\$ 22,000.00	\$ -		\$ -
111	Insulate OA Pipe	\$ 24,316.00	\$ -		\$ -

112	Pave Site	\$ 15,725.00	\$ 15,725.00	100.00%	\$ 786.25
113	Touch-Up Paint	\$ -	\$ -		\$ -
114	Install HVAC Gear	\$ 23,500.00	\$ -		\$ -
115	Start-Up & Test HVAC Gear	\$ 8,500.00	\$ -		\$ -
116	Install New Skylight System	\$ -	\$ -		\$ -
117	Punchlist	\$ 2,301.25	\$ -		\$ -
Change Order 1		\$ 5,021.87	\$ 5,021.87	100%	\$ 251.09
Change Order 2		\$ 3,789.26	\$ 3,789.26	100%	\$ 189.46
TOTAL		\$ 2,477,811.13	\$ 1,229,559.54	49.62%	\$ 61,477.98

TOTAL EARNED TO DATE:	\$ 1,229,559.54
5% TOTAL RETENTION TO DATE:	\$61,477.98
TOTAL AMOUNT PREVIOUSLY PAID:	\$ 859,652.13
TOTAL AMOUNT DUE CONTRACTOR:	\$ 308,429.43

ACCEPTED BY:
K.G. Walters Construction Co., Inc.

APPROVED BY:
Tahoe-Truckee Sanitation Agency

BY: 

BY:

DATE: 09-07-2021

DATE: _____



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: V-1
Subject: Appointment of Agency Board President and Vice President

Background

Tahoe-Truckee Sanitation Agency Act requires a President and Vice-President be elected to the Agency Board of Directors as follows:

§ 114-65. President and vice president; election

Sec. 65. At the first regular meeting of the board next succeeding September 1 of each odd-numbered year, the board shall elect from its membership a president and vice president.

The President and Vice-President elect shall preside at the next Board of Directors meeting.

Fiscal Impact

None.

Attachments

None.

Recommendation

Management recommends the Board of Directors elect a President and Vice President.

Review Tracking

Submitted By: 

LaRue Griffin
General Manager



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Roshelle Chavez, Executive Assistant/Board Clerk
Item: V-2
Subject: Approval of the minutes of the regular Board meeting on August 18, 2021

Background

Draft minutes from previous meeting(s) held are presented to the Board of Directors for review and approval.

Fiscal Impact

None.

Attachments

Minutes of the regular Board meeting on August 18, 2021.

Recommendation

Management and staff recommend approval of the minutes of the regular Board meeting on August 18, 2021.

Review Tracking

Submitted By:

Roshelle Chavez
Executive Assistant/Board Clerk

Approved By:

LaRue Griffin
General Manager

**BOARD OF DIRECTORS
REGULAR MEETING MINUTES**

August 18, 2021

I. Call to Order:

President Cox called the regular meeting of the Tahoe-Truckee Sanitation Agency Board of Directors to order at 9:00 AM. Roll call and Pledge of Allegiance followed.

Directors Present: Dale Cox, OVPSD
S. Lane Lewis, NTPUD
David Smelser, ASCWD
Blake Tresan, TSD

Directors Absent: Dan Wilkins, TCPUD

Staff Present: LaRue Griffin, General Manager
Roshelle Chavez, Executive Assistant/Board Clerk
Vicky Lufrano, Human Resources Administrator
Crystal Sublet, Finance & Administrative Manager
Michael Peak, Operations Manager
Jay Parker, Engineering Manager
Richard Pallante, Maintenance Manager
Richard P. Shanahan, Agency Counsel
Dawn Davis, Administrative Department
Angelina Henson, Administrative Department
Mike Smith, Engineering Department
Paul Shouse, Maintenance Department
Tanner McGinnis, Maintenance Department
Jaime Garcia, Maintenance Department
Soraya Morz, Maintenance Department
Luke Swann, Maintenance Department

Public Present: Sarah Coolidge, Public
Pippin Mader, Public

II. Public Comment.

Mr. Phippen Mader provided public comment regarding website PDF copy/paste options for Board documents, virtual options for future Board meetings, employee retention and personnel matters.

III. Professional Achievements, Awards & Anniversaries.

Mrs. Vicky Lufrano acknowledged several members of Agency staff whom obtained professional achievements, awards, and anniversaries. Vicky also introduced new hire Mrs. Soraya Morz, the new CMMS/GIS technician to the Board of Directors, whom welcomed her.

IV. Consent Agenda

1. Approval of the general fund warrants.
2. Approval of the financial statements.
3. Approval of Progress Pay Estimate No. 2 for the 2021 Chiller Replacement project.
4. Approval of Progress Pay Estimate No. 3 for the 2021 Plant Painting project.
5. Approval of Progress Pay Estimate No. 4 for the 2020 Headworks Improvements project.

Mr. Pippin Mader provided public comment regarding the consent Agenda.

MOTION by Director Lewis **SECOND** by Director Tresan to approve the consent agenda; unanimously approved.

The Board approved the motion by the following vote:

AYES:	Directors Smelser, Tresan, Lewis and President Cox.
NOES:	None
ABSENT:	Director Wilkins
ABSTAIN:	None

Motion passed.

V. Regular Agenda

1. Report from July 21, 2021 closed session meeting.

Mr. LaRue Griffin stated there was nothing to report from the July 21, 2021 closed session meeting.

No action was taken by the Board.

2. Approval of the minutes of the regular Board meeting on July 21, 2021.

MOTION by Director Tresan **SECOND** by Director Smelser to approve the minutes of the regular Board meeting on July 21, 2021; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed

3. Approval of Resolution No. 17-2021 approving employee benefit changes

Mr. Pippin Mader provided public comment regarding Resolution No. 17-2021.

MOTION by Director Tresan **SECOND** by Director Lewis to approve Resolution No. 17-2021 approving employee benefit changes; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed

4. Approval of updated Maintenance Mechanic I/II/III, Operator OIT/I/II/III, and Operations Shift Supervisor classification descriptions.

Mr. Pippin Mader provided public comment regarding updated classification descriptions.

MOTION by Director Smelser **SECOND** by Director Tresan to approve updated Maintenance Mechanic I/II/III, Operator OIT/I/II/III, and Operations Shift Supervisor classification descriptions; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed

5. Approval to award the SCADA and IT Master Planning Services.

Mr. Pippin Mader provided public comment regarding the SCADA and IT Master Planning Services.

MOTION by Director Lewis **SECOND** by Director Tresan to award SCADA and IT Master Planning Services to Jacobs Engineering for the bid amount of \$172,638; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed

6. Approval to award Pretreatment Program Review Services.

The award for the Pretreatment Program Review Services was tabled for a future meeting.

7. Approval of the 2021 Sewer System Management Plan Audit.

MOTION by Director Tresan **SECOND** by Director Smelser to approve the 2021 Sewer System Management Plan Audit; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed

8. Approval to solicit bids for the 2021 Chlorine Scrubber Improvements project.

Mrs. Sarah Coolidge and Mr. Pippin Mader provided public comment regarding the 2021 Chlorine Scrubber Improvements project.

MOTION by Director Lewis **SECOND** by Director Tresan to solicit bids for the 2021 Chlorine Scrubber Improvements project; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed.

9. Approval of Agency Fixed Asset Policy

MOTION by Director Lewis **SECOND** by Director Smelser to approve the Agency Fixed Asset Policy; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed.

10. Approval of the Agency response to Placer County Grand Jury Report.

MOTION by Director Lewis **SECOND** by Director Smelser to approve the Agency response to Placer County Grand Jury Report; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed.

VI. Management Team Reports

1. Department Reports.

Mr. Peak provided an update on current and past projects for the operations department and reported that waste discharge requirements were met for the month, with the exception of one violation in dissolved oxygen (D.O.) concentration.

Mr. Pallante provided an update on current and past projects for the maintenance department.

Mr. Parker provided an update on current and past projects for the engineering department.

Mrs. Sublet provided an update on current and past projects for the administration department.

No action was taken by the Board.

2. General Manager Report

Mr. Griffin provided an update on the status of various ongoing projects, none of which required action by the Board.

Mrs. Sarah Coolidge and Mr. Phippen Mader provided public comment regarding the Operations department report.

No action was taken by the Board.

VII. Board of Directors Comment

Director Tresan stated that he would like to work with staff to make the Board PDFs more user friendly; requested discussion items of UV or alternative disinfection be placed on the next meeting Agenda; and discussed potential delivery of pump station sewage to the plant.

Directors Tresan and Lewis advised taking a second look at defensible space in light of the current fire season. Mr. Griffin advised that a contractor was already scheduled to perform the work.

Director Smelser congratulated staff for consulting with Logically for IT services in light of all the recent attacks in the industry.

All the Directors stated it was good to be back in the Board room and to see everyone face to face again.

The Board went into closed session with legal counsel and Mr. Griffin at 11:55 AM.

MOTION by Director Smelser **SECOND** by Director Lewis to move into closed session; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed.

VIII. Closed Session

1. Closed session conference with legal counsel regarding existing adjudicatory administrative proceedings, Fay v. Tahoe-Truckee Sanitation Agency (Public Employee Relations Board Case No. SA-CE-1090-M) under Government Code section 54956.9(d)(1).
2. Closed session for public employee discipline/dismissal/release.
3. Conference with General Manager, as Agency real property negotiator, concerning price and terms of payment relating to potential real property exchange with Truckee Tahoe Airport District concerning Nevada County APN 019-440-81, APN 049-040-24 and APN 049-040-25 pursuant to Government Code Section 54956.8.
4. Closed session for public employee performance evaluation of the General Manager.

The Board reopened into open session at 1:11 PM.

MOTION by Director Lewis **SECOND** by Director Tresan to move into open session; unanimously approved.

The Board approved the motion by the following vote:

AYES: Directors Smelser, Tresan, Lewis and President Cox.
NOES: None
ABSENT: Director Wilkins
ABSTAIN: None

Motion passed.

IX. Regular Agenda

1. Consider adoption of resolution or motion appointing hearing officer for employee termination appeal hearing.

Mr. Shanahan reported that the directors determined that the full Board would conduct the hearing on the Barker termination appeal. Mr. Shanahan also reported that there was no other reportable action from closed session.

No action was taken by the Board.

X. Adjournment

There being no further business, the meeting was adjourned at 1:11 PM.

MOTION by Director Lewis **SECOND** by Director Tresan to move into closed session; unanimously approved.

Motion passed.

LaRue Griffin
Secretary to the Board

Approved: _____



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: Jay Parker, Engineering Manager
Item: V-3
Subject: Approval to award the Pretreatment Program Review Services

Background

The Agency is pursuing consulting assistance in the continued improvement, administration, implementation, and upkeep of the Agency's Industrial Pretreatment Program. Staff advertised a Request for Proposals (RFP) for a consultant to review and provide professional services associated with TTSA's Industrial Pretreatment Program. The consultant's work efforts would be to support Agency compliance with all applicable state and federal laws, the Clean Water Act, General Pretreatment Regulations, waste discharge requirements and receiving water quality standards imposed by the Lahontan Regional Water Quality Control Board, and Agency ordinances, rules, regulations, and prohibitions. This work is anticipated to commence sometime in Fiscal Year 2021/2022 following award to the successful consultant.

Two proposals were received on July 1, 2021 as follows:

- Carollo Engineers, Inc. (Carollo), Reno, NV: \$174,600
- EEC Environmental, Orange, CA: \$414,346

Both proposals were found to be responsible and responsive.

At the August 18, 2021 Board meeting, the TTSA Directors requested staff to work with Carollo to identify potential items that may be eliminated from the scope of work to ensure the most efficient use of rate payer monies. Carollo offered a couple of ways to optimize work tasks, as further described below.

The first suggestion is to eliminate the task of developing a sampling plan (Optional Task 2.2). The proposed sampling plan was to include the consultant's review of the TTSA data set, identification of the pollutants of concern (POCs), determination of sampling needs for development of plant-specific removal efficiencies for the POCs, and finally conducting sampling and analysis. In the absence of using data that would be otherwise collected from the contemplated sampling activities, Carollo would instead use EPA reference values.

A second suggestion to reduce project scope that pairs-up with the first suggestion would be to provide only a review of the existing local limits evaluation. The work to revise local limits would be reduced (Task 6). The local limits analysis conducted by TTSA's prior consultant relied on EPA literature removal efficiencies. With the elimination of the additional sampling activities described above, the Agency would need to continue to rely on EPA reference values instead of using actual numbers

obtained from sampling activities. Only a simple review of the existing local limits would be performed instead.

Fiscal Impact

With the above-proposed suggested changes in the scope of work, the total estimated project cost would be reduced from \$174,600 to \$123,000. The amount originally budgeted for the work was \$175,000.


Attachments

Proposal from Carollo Engineers, Inc.

Recommendation

Management and staff recommend approval for staff to award the Pretreatment Program Review Services to Carollo Engineers, Inc. and authorize the General Manager to negotiate an agreement up to \$123,000.

Review Tracking

Submitted By: 
Jay Parker
Engineering Manager

Approved By: 
LaRue Griffin
General Manager

Prepared for
TAHOE TRUCKEE SANITATION AGENCY

Pretreatment Program Review Services

Proposal | July 2021



July 1, 2021

Tahoe-Truckee Sanitation Agency
Attention: Mr. Jason Parker, P.E., Engineering Department Manager
13720 Butterfield Drive
Truckee, CA 96161

Subject: Proposal for Pretreatment Program Review Services

Dear Mr. Parker:

Over the last five years, and especially the last 18 months, we all realize how much the Truckee-North Tahoe region has changed. Commercial development in Truckee is proceeding at record pace, and the number of residents continues to climb. The Agency is an unsung steward of the region's water resources, and has a dedicated staff that is focused on protecting the environment. That dedication is driving the Agency to work hard to improve current programs, including updating many of its plans and programs that govern the stewardship of Truckee-North Tahoe's most important natural and constructed resources, including the Water Reclamation Plant (WRP) and the Truckee River.

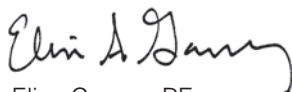
By selecting **Carollo Engineers, Inc.**, the Agency has the opportunity to partner with a team of professionals bringing many years of experience developing technically based pretreatment programs in accordance with 40 CFR 403 and EPA guidance, while understanding and considering the linkages with current conditions and local planning efforts.

Our team, led by project manager **Elisa Garvey** with oversight from **Tim Loper**, brings unparalleled understanding of the Agency's systems, direct knowledge of current programs and water quality and a track record of success with pre-treatment projects. Success will be defined by the development of a program that will be acceptable to and defensible by the Agency, perceived as reasonable by local industries, and that will withstand the scrutiny of the RWQCB and US EPA.

We appreciate the opportunity to submit this proposal, and welcome the opportunity to continue working with Agency staff to make advancements in its current programs. We are committed to meeting your goals and objectives, dedicated to responding to your needs, and are available, ready, and eager to begin work on your project.

Sincerely,

CAROLLO ENGINEERS, INC.



Elisa Garvey, P.E.
Project Manager



Tim Loper, P.E.
Project Principal

Description of the Firm

Carollo Engineers is the largest consulting firm in the United States that specializes 100% on water and wastewater engineering services – it's all we do.

WATER
OUR FOCUS
OUR BUSINESS
OUR PASSION

The Tahoe-Truckee Sanitation Agency (Agency) is undertaking an important project to review its Pretreatment Program. Your project's success will be defined by the development of local limits that will be acceptable to and defensible by the Agency, perceived as reasonable by local industries, and that will withstand the scrutiny of the Regional Water Quality Control Board (RWQCB) and the U.S. EPA. To deliver this project, Carollo Engineers, Inc. has teamed with Penny Carlo Engineering, LLC (Carollo Team).

CAROLLO ENGINEERS, INC.

For more than 88 years, Carollo has specialized in applied research, planning, design, program management, and construction support for treatment facilities and ancillary infrastructure systems. We have been privileged to lead some of the most challenging treatment and infrastructure projects in our business, including industrial pretreatment, local limits, and source control projects.

Our focus solely on water projects translates to a keen understanding and application of innovative and cost-effective solutions for our municipal, federal, and industrial clients. We lead with ideas, and back up our work with rigorous engineering and dedication to successfully seeing our projects through to completion. Because of this combination, Carollo is currently ranked in ENR's Annual Source Book among the Top 10 Firms for water engineering services.

Penny Carlo Engineering, LLC

Penny Carlo founded her company in 2020 after retiring from Carollo Engineers, Inc. Penny has nearly 30 years of experience in industrial pretreatment and source control management. She specializes in water quality with an emphasis in industrial pretreatment and salinity control for municipal and industrial entities. Now working as an independent subcontractor to Carollo, Penny is assisting municipal agencies in California, Oregon, and Florida with their industrial pretreatment programs. In recent years, much of her work has focused on helping

agencies expand their traditional pretreatment programs to meet the objectives of enhanced source control programs for potable reuse. She helps utilities realize the linkages and continuity between an agency's pretreatment program, potable reuse program, and facility operations when developing or expanding their programs.

Together, our team brings a proven record of success and unmatched knowledge of your existing and planned facilities, and the local environment.

Record of success

Carollo has been working with the Agency since 2018, with the start of the WRP and Truckee River Interceptor Master Plan project. Through the master planning process, Carollo has developed a deep understanding of the treatment plant, the Agency data, organizational structure, and influent and effluent quality and constraints. Carollo is excited to continue serving the Agency as a trusted advisor.

FIRM NAME: Carollo Engineers, Inc.

WEBSITE: www.carollo.com

LOCATION: 100 West Liberty Street,
Suite 740
Reno, Nevada 89501

PHONE: 775.324.4427

PRINCIPAL CONTACT: Tim Loper, PE
775.332.8721
tloper@carollo.com

Firm's Related Experience

Carollo's qualifications and program experience cover a wide range of technical evaluations and pretreatment program elements that directly relate to your upcoming project.

The Carollo Team's experience with local limit evaluations and overall pretreatment program development is extensive. We have assisted many municipalities with various levels of need, from specific issues to developing and implementing new programs from scratch. We know how to work effectively with industries to gain their support of pretreatment changes or lower limits. We also know what it takes to get a project approved by the regulators. We have completed local limits evaluations in four states, involving three EPA regions, two RWQCB regions, and several EPA contract reviewers. In addition, we have coordinated sampling for local limits development, drafted ordinance language and industry permits, and developed enforcement response plans. A summary of relevant projects is provided below. We encourage you to contact the client references listed to verify the quality of our services on similar projects.

SELECT INDUSTRIAL PRETREATMENT EXPERIENCE

The table below includes some highlight of our team's project experience. In addition, detailed project descriptions for Bay County, the Cities of Oxnard and Ventura, and Morro Bay are provided.

Client / Project Name	Local Limits	Salinity Local Limits	Ordinance Revision	Sampling Program	SIU Monitoring	EPA 2004 Guidance Manual	Enforcement Response Plans (ERPs)	Industry Permits
City of Bakersfield, CA Plant 2 Industrial Pretreatment Program	✓	✓	✓	✓	✓		✓	
City of Bakersfield, CA Plant 3 Industrial Pretreatment Program	✓	✓	✓	✓	✓		✓	
Bay County Utility Services, FL Local Limits and Industrial Permit Updates	✓		✓	✓	✓	✓	✓	✓
City of Morro Bay, CA Enhanced Source Control Program			✓	✓	✓		✓	
City of Hanford, CA Industrial Pretreatment Program Development	✓	✓	✓	✓	✓		✓	✓
Kern Sanitation Authority, CA Industrial Pretreatment Program Development	✓	✓	✓	✓	✓		✓	✓
City of King, CA Sewer Use Ordinance Update			✓					✓
City of Reedley, CA Industrial Pretreatment Program Development	✓	✓	✓	✓	✓	✓	✓	✓
City of Tulare, CA Both Domestic and Industrial Plant Pretreatment Program Development	✓	✓	✓	✓	✓	✓	✓	✓
City of Visalia, CA Water Conservation Plant Pretreatment Assistance	✓	✓						
City of Yuma, AZ Desert Dunes WRF Local Limits Evaluation	✓	✓		✓		✓		
City of Yuma, AZ Figueroa WPCF Local Limits Evaluation	✓	✓				✓		

Industrial Pretreatment Program Local Limits ***City of Ventura, CA***



Carollo is conducting a local limits evaluation to evaluate and select technically-based local limits for industrial discharges into the Ventura WRF and wastewater collection system. The goals of the project are to prevent pollutants into the WRF that could affect operations, such as activated sludge, anaerobic digestion, and advanced treatment for recycled water; prevent pass-through of pollutants in concentrations that could violate water quality standards or the NPDES effluent limits; prevent excessive build-up of pollutants in the WRF biosolids that could limit biosolids uses or disposal alternatives; and protect worker safety in collection, treatment, and disposal systems. In addition, the evaluation considers the potential impacts of breweries, wineries, and cannabis facilities on treatment operations at the WWTP, the future purification facility, and attainment of water quality standards.

Local Limits Evaluation, Industrial Outreach, and Legal Update ***City of Oxnard, CA***



Carollo was retained by the City of Oxnard to update its industrial local limits for the Oxnard Wastewater Treatment Plant (OWTP). The last update to its local limits was in 1999. The OWTP serves the City of Oxnard, City of Port Hueneme, a naval base, a community services district, and several surrounding unincorporated areas. The City permits 35 Significant Industrial Users (SIUs); 13 of which are Categorical Industrial Users (CIUs).

The project established industrial antidegradation local limits for total dissolved solids (TDS) and Boron to avoid mandating industrial reductions of these constituents. Public outreach with industries, Chamber of Commerce, and Utility Task Force were provided as well as a 14-day sampling program for In-Plant and Residential Areas Ordinance and ERP Updates. for landscape irrigation and discharged to spreading basins and injection wells for indirect potable reuse.

Local Limits and Industrial Permit Updates

Bay County Utility Services, FL



Carollo has been assisting Bay County Utility Services (BCUS) with their pretreatment program since 2013. The last local limits evaluation was conducted in 2003, and in 2015, Carollo completed the industrial local limits for the Military Point Advanced Wastewater Treatment Facility (MPAWTF) as a requirement in BCUS's NPDES permit, issued by Florida Department of Environmental Protection (FDEP). The MPAWTF is a 7-mgd, 5-stage BNR facility that treats wastewater from six communities and discharges to an ocean outfall. Some unique issues of concern included hydrogen sulfide in one trunk line (600 ppm-1,000 ppm) and discharges of industrial solvents and pollutants associated with fire-fighting chemicals that interfere with nitrification. The local limits report was approved by the FDEP, and BCUS has implemented the new limits.

Enhanced Source Control Program

City of Morro Bay, CA



Carollo was hired to develop an Enhanced Source Control Program (ESCP) to fulfill Title 22 requirements for potable reuse at their new Water Reclamation Facility (WRF). Because the City did not have an existing industrial pretreatment program, the ESCP combined elements of a pretreatment program with a pollutant source control program. The ESCP not only prevents pass-through and interference at the wastewater treatment plant, but also controls the discharge of constituents of concern and protects drinking water quality.

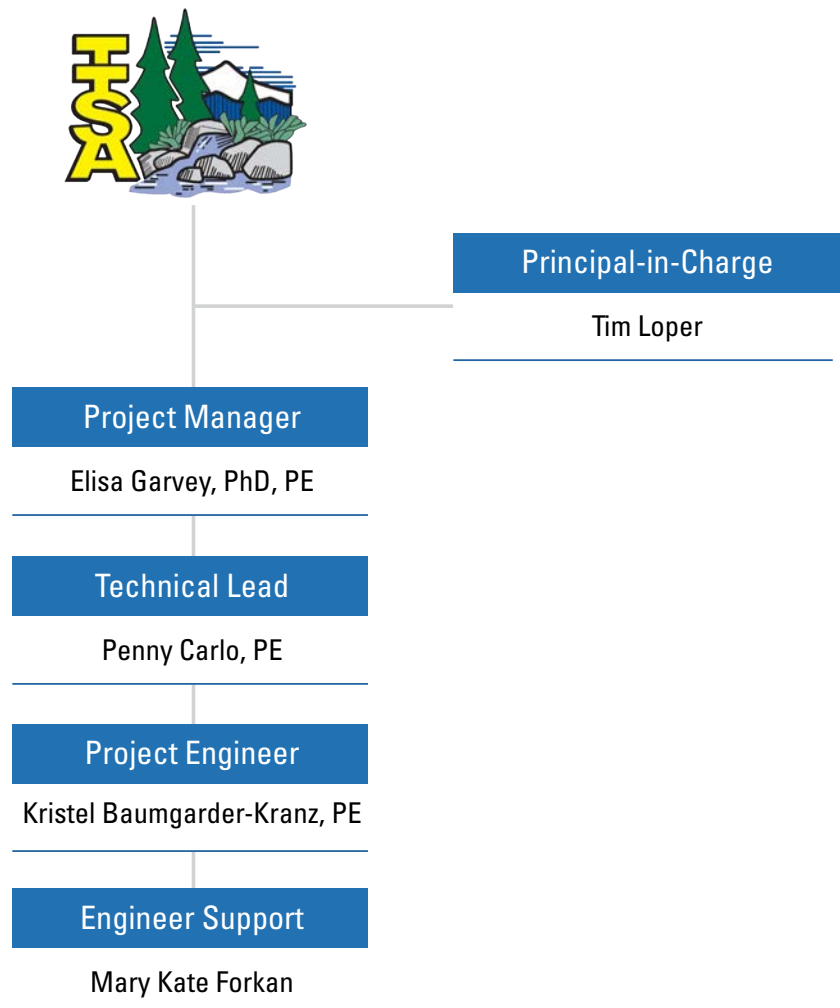
As part of the ESCP, Carollo established brand new pretreatment program elements instead of submitting a formal industrial pretreatment program for approval through the National Pretreatment Program. The goal was to develop a program that would sufficiently protect the plant and provide potable water reuse regulators with the confidence that the water supply is and will continue to be adequately protected without imposing an unnecessary burden on the City. The City adopted the new sewer use ordinance and is moving forward with implementing Carollo's recommendations.

Staff's Experience

Choosing a team that will provide you with expertise and a proven track record of quality work is essential to the success of your upcoming project.

The Carollo Team has broad experience in developing local limits to manage influent pollutant loadings into your wastewater treatment facilities. We have experience working with staff at the RWQCBs throughout California and U.S. EPA's pretreatment coordinators to develop approved pretreatment programs and establish local limits.

Working together with the Agency, the Carollo Team will make it a priority to meet your goals and objectives. We will "connect the dots" between serving dischargers in your system, protecting your existing and planned facilities, and minimizing the risk of exceeding regulatory limits. The organizational chart below illustrates our team structure. We have summarized our team's roles and responsibilities in the following pages.



PROPOSED KEY TEAM MEMBERS



Elisa Garvey, PE

PROJECT MANAGER

RESPONSIBILITIES: Elisa will be your primary contact throughout the project. She will manage the project, provide resources for the project, and general oversight of the deliverables, budget, and schedule.

EXPERIENCE:

- Project Engineer for the City of Ventura Industrial Pretreatment Program Local Limits, Wastewater Master Plan, and Reuse Studies.
- Project Manager for State-wide Data Collection Program to determine sewer flows and loads.
- Project Engineer for the City of Oxnard Master Plan, including source control related efforts.
- Project Manager for Washoe County, Nevada, Arsenic Mitigation Sampling Plan Re-Evaluation.
- Project Engineer for the City of Fresno Report of Waste Discharge and Anti-degradation Analysis for proposed recycled water projects.
- Planning Lead for the Orange County Water District (OCSD), PFAS Treatment Systems Planning Study.



Tim Loper, PE

PROJECT PRINCIPAL

RESPONSIBILITIES: Tim will assure that Carollo resources are available, that contractual obligations are met, and that our team provides client service to the project team.

EXPERIENCE:

- Principal for projects for the South Tahoe Public Utility District, TTSA, and other surrounding areas. Very familiar with the area and local regulations and permitting requirements.
- Project Engineer for the City of Morro Bay, OneWater Morro Bay Master Plan. Included water system field data gathering (pressure logger installation, SCADA system data gathering, and fire flow test data).
- Project Engineer for the City of Ridgecrest, Wastewater Treatment Plant Expansion.
- Project Engineer for the City of Taft, Domestic and Federal Prison Wastewater Treatment Plant Expansions.
- Collection System Lead for the City of Grand Junction, Colorado, Persigo Wastewater Treatment Plant Master Plan Development.



Penny Carlo, PE

TECHNICAL LEAD

RESPONSIBILITIES: Penny will provide oversight of the technical tasks required to support the development of updated Local Limits and Ordinances.

EXPERIENCE:

- Project Manager City of Oxnard Local Limits Evaluation, Industrial Outreach, and Legal Update. Included innovative antidegradation industrial limits for TDS and Boron.
- Co-Principal Investigator for the WRF-funded project, "Demonstrating Real-Time Collection System Monitoring for Potable Reuse."
- Project Manager for the Bay County Utility Services Local Limits and Industrial Permit Updates for the Military Point Advanced Wastewater Treatment Facility.
- Technical Advisor for the City of Morro Bay Development of the Enhanced Source Control Program for the to support the City's potable reuse program and provide enhanced source control.
- Developed the first pretreatment ordinance for King City. Addressed needs to regulate medical cannabis businesses.



Kristel Baumgardner-Kranz, PE

PROJECT ENGINEER

RESPONSIBILITIES: Kristel will develop the technical documentation and evaluation of local limits.

EXPERIENCE:

- Staff Engineer for the City of Oxford Local Limits Evaluation, Industrial Outreach, and Legal Update. Updated the City's industrial local limits and developed a new salinity local limit for the OWTP. Responsible for site-specific industry allocations and biosolids-to-landfill calculations.
- Project Engineer for the City of Morro Bay Enhanced Source Control Program development, including development of industrial waste survey, sewer use ordinance, and enforcement response plan.
- Project Engineer for the City of Bakersfield Local Limits Evaluation. Responsible for updating the City's industrial local limits.
- Staff Engineer for City of Ventura Industrial Pretreatment Program Local Limits, Wastewater Master Plan, and Reuse Studies and revisions. Included coordination of sampling, data evaluation, and headworks loading calculations.
- Staff Engineer for the Bay County Utility Services Local Limits and Industrial Permit Updates for the Military Point Advanced Wastewater Treatment Facility. Responsible for developing new permits for dischargers to the sewer system to incorporate updated local limits and regulatory requirements.



Mary Kate Forkan

ENGINEER SUPPORT

RESPONSIBILITIES: Mary Kate will support with the technical tasks associated with data analysis, sampling plan development, and the Local Limits evaluation. In addition, she will provide the technical details for updated Ordinances.

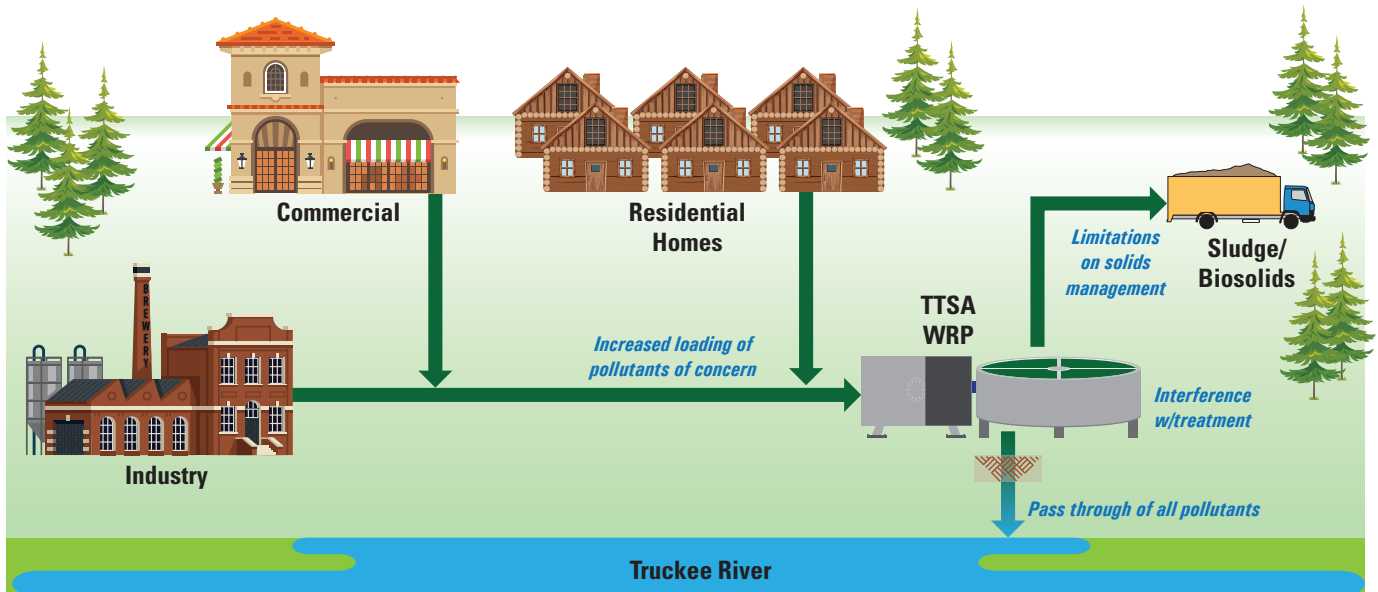
EXPERIENCE:

- Staff Engineer for the Encinitas Water Authority Pretreatment Program Review. Assisted with the research of the EWA ordinance and five member agency ordinances to create two separate surveys. These surveys attempted to gauge time spent on tasks and get an understanding of program costs.
- Knowledge of NPDES permit conditions and IU user types.
- Staff Engineer for the Tahoe-Truckee Sanitation Agency Sewer Master Plan and has familiarity with the WRP.

Project Approach and Scope of Work

The project involves supporting Agency efforts to update and improve its existing Pretreatment Program. The Agency needs a qualified firm with a sound technical approach for reviewing and updating the program, including developing revised local limits in accordance with the federal regulations and recommendations of EPA's 2004 Local Limits Development Guidance. Our approach was developed from our understanding of your service area, the performance of the WRP, and the endpoint of your system which include:

- Discharge to the Truckee River – as governed by NPDES permit.
- Biosolids disposal – Class B anaerobically digested sludge that is dewatered and composted.



Our comprehensive approach to assessing and updating your local limits and your Pretreatment Program elements at large, will consider your service area characteristics, the performance of the WRP, and compliance with permit limits (liquids and solids).

The Agency’s service area is predominantly residential and commercial, with no significant or categorical industrial users in the service area. The Agency completed a local limits analysis and incorporated the findings into their pretreatment ordinance (Ordinance 1-2015). The ordinance includes narrative standards, including for BOD and local limits for metals, TDS, and Chloride. Per the most recent annual reports (2018 and 2019), there has not been indication of notable toxic interferences, based on data analysis, the excellent overall system performance, and the consistently high quality of effluent and sludges (TTSA, 2018, and 2019).

Despite the limited risk based on the dischargers in the Agency’s service area and the proven performance of the WRP, the treatment facility is subject to stringent permit limits, and it is important to consider all factors that influence permit compliance. As the Agency looks into the future, there are potential concerns with TDS, BOD, and other pollutants from existing and future dischargers in the service area.

This project calls for an evaluation of the Agency’s Pretreatment Program, including review of the development of existing local limits, recommendations for revised local limits (if applicable), an update to the Enforcement Response Plan (ERP), and an estimated cost of program implementation. Our overarching approach to updating these elements of your Pretreatment Program and meeting your objectives include:

- Leveraging you past efforts/dataset and “right sizing” a sampling program.
- Striking a regulatory balance.
- Achieving defensible local limits.

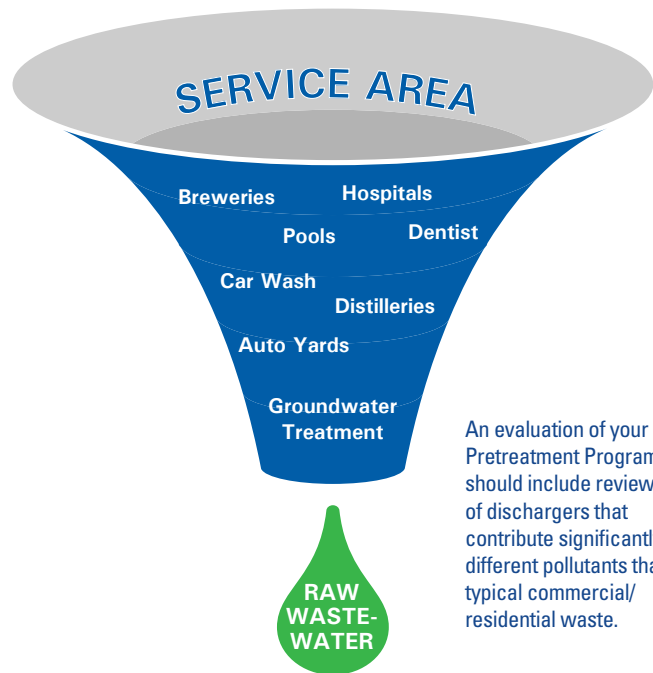
Leveraging you Past Efforts, Existing Dataset, and “Right Sizing” a Sampling Program

The Agency maintains a well-organized and comprehensive database that includes data collected for the purpose of assessing treatment performance and complying with discharge regulations. Development of the 2015 Local Limits utilized your PIS database. Our review for the 2015 Local Limits and consideration of updated local limits will leverage this past work and your data collection efforts. With that said, due to relatively high reporting limits for analytical tests, the previous 2015 Local Limits relied on EPA default values for pollutant removal efficiencies. This is not uncommon, as additional sampling is required in most local limits studies. Sampling and analysis can be labor intensive and costly. If needed, we will develop a “right-sized” sampling program that will meet your objectives, but does not overdo the effort.

Pollutant	Daily Maximum Limits (mg/L)
Arsenic	0.26
Cadmium	0.22
Chromium	1.17
Copper	1.34
Lead	0.31
Mercury	0.078
Molybdenum	0.76
Nickel	0.74
Selenium	0.15
Silver	2.47
Zinc	2.97
Total Dissolved Solids	1145
Chloride	753

- Existing Local Limits include 11 of the 15 EPA National Pollutants of Concern
- Remaining Pollutants of Concern include:
 - » Cyanide
 - » BOD
 - » TSS
 - » Ammonia

- Other POCs identified by the Agency



We follow a step-wise process for developing sampling plans for local limits, which includes:

- **Screening of Existing Data** – We will determine the preliminary list of pollutants of concern (POC) for the local limits evaluation, based on the 2015 Local Limits analysis combined with compiling and screening more recent data. We will use the screening methods from EPA’s “Local Limits Development Guidance” (2004) and our best professional judgment to develop the preliminary POC list.
- **Establishing Residential Contribution** – The success of the local limits development hinges on generating valid and adequate data from the domestic/residential sectors of the City, since the “background” concentrations are critical in determining the allowable industrial loadings. We will rely on the data you have collected and will strive to minimize any new sampling.
- **Identifying Sampling Locations** – We identify sampling locations based on a “needs analysis,” which will compare the analysis that can be done based on your existing data sets against the analysis needed to meet your fundamental objectives. The “gap” will form the basis for additional sampling. We expect that the sampling plan will include additional sampling locations/parameters within the WRP to meet your objectives.

Throughout the process, we will work closely with you on these decisions to assure concurrence in approach and interpretation along the way. We will not wait until we have a draft report to show you our findings.

Striking a Regulatory Balance

Our approach to all of our pretreatment program projects is to strike the balance between developing program elements (including local limits) that are not overly restrictive or onerous for local industries, but at the same time fully protective of, in this case, the WRP. We understand the importance of maintaining good relations with future local industries. While it is necessary that effluent quality be controlled, future local industry can be important to the tax base, local jobs opportunities, and community leadership. Over-regulation can become unnecessarily burdensome and costly to the industries and to the Agency. We do not believe in the “more is better” philosophy toward regulation. We will draw on our experience and professional judgment to assure that your Pretreatment Program strikes the balance between regulation and protection of your facilities.



This overarching philosophy is relevant to several program elements that will be revisited as part of this project, including:

- Industrial discharger permit language and requirements,
- narrative and numeric local limits, and
- the required procedures in your ERP.

The benefit of developing reasonable, but protective program elements, is that the Agency will be more likely to garner industry support. We have found that it is critical to have industry support to streamline program implementation and to support approval by elected officials.

In Oxnard, we developed creative “antidegradation” limits for Boron and TDS to resolve concerns of local industries, while protecting the secondary and advanced treatment facilities.

Achieving Defensible Local Limits

Technical defensibility is critical to the development of local limits and the development of defensible local limits that meet the following fundamental objectives:

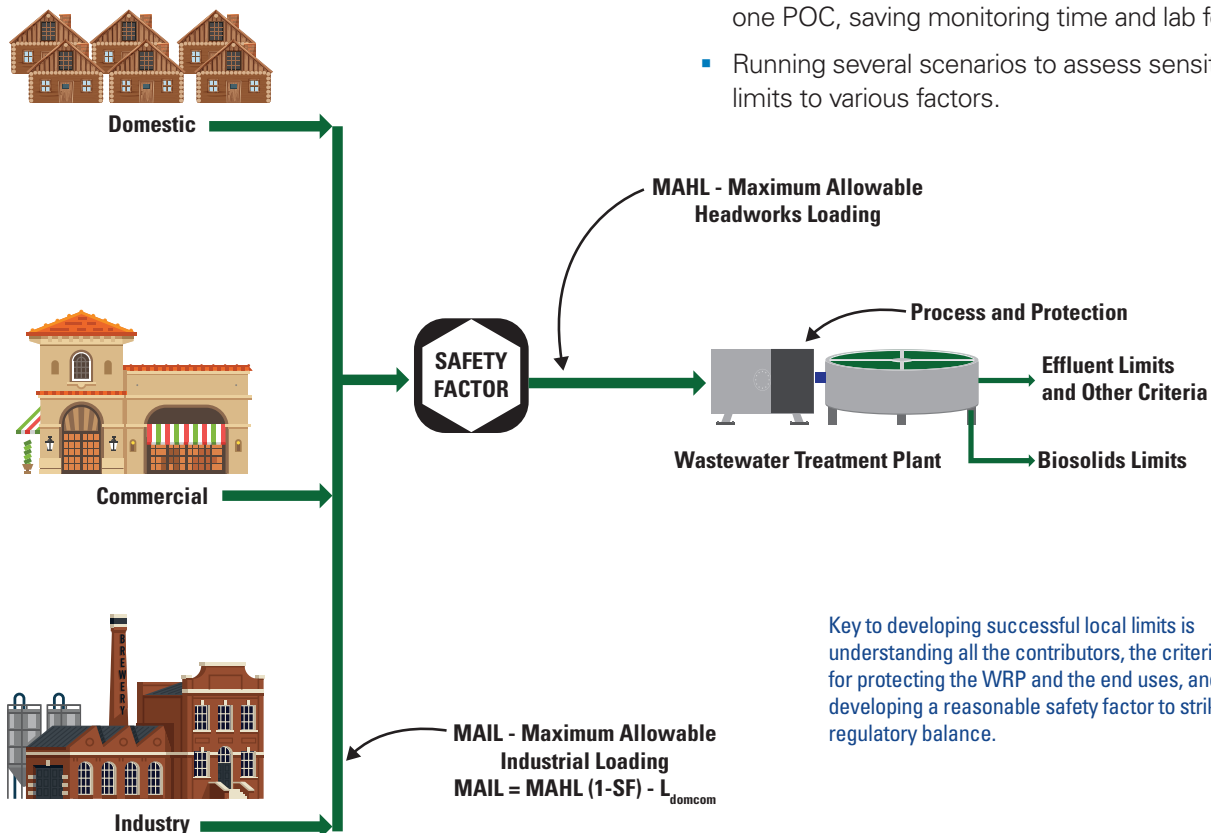
- Prevent introduction of pollutants into the Agency's WRP that could interfere with its operations.
- Prevent pass-through of pollutants in concentrations that could violate applicable water quality standards or discharge permit limits.
- Prevent excessive build-up of pollutants in the Agency's WRP biosolids that could limit biosolids uses or disposal alternatives.
- Protect worker safety.

The calculations used in developing local limits are relatively simple. However, they are quite sensitive to the flow and concentration variability that is inherent in wastewater sampling. The limits are dependent on key assumptions, such as safety factors, removal efficiencies, and process inhibition levels. The effects of non-detectable concentrations, minor adjustments to flow factors, sample variability, etc., can result in limits that are inappropriate or unnecessary for meeting the ultimate objectives of the NPDES permit and associated Pretreatment Program.

An important aspect of local limits development is the professional judgment used in handling the data and in selecting appropriate factors for the calculations. Carollo's eye for data sensitivity offers a "reality check" for the

appropriateness and technical justification of the final limits. Utilizing the existing data, we will calculate the Maximum Allowable Headworks Loading (MAHL) and the Maximum Allowable Industrial Loadings (MAIL) for each POC. This effort involves inputting the POC concentrations from the dataset, as well as selected criteria, plant removal rates, safety factors, etc., into Carollo's custom local limits calculation spreadsheet. We will use our professional judgment and knowledge of the WRP performance based on our work on your facility master plan, to assure appropriate assumptions and input values are used. This includes:

- Selecting appropriate input data values for non-detectable concentrations.
- Conducting a mass balance check to assure the data are reasonable and the computed MAHLs make sense.
- Determining justifiable plant removal rates for each POC and comparing the values to EPA default values and other BNR/tertiary plants.
- Using best professional judgment to establish the most appropriate safety factor for each POC.
- Determining the need for a local limit for each POC or the justification to eliminate a POC from the final local limit list.
- Consideration of the impacts to the Agency's monitoring and analysis costs for each possible limit. Sometimes, one limit can effectively control more than one POC, saving monitoring time and lab fees.
- Running several scenarios to assess sensitivity of the limits to various factors.



Key to developing successful local limits is understanding all the contributors, the criteria for protecting the WRP and the end uses, and developing a reasonable safety factor to strike a regulatory balance.

SCOPE OF WORK

Agency staff are looking for assistance in the development, administration, implementation, and upkeep of the Agency's Industrial Pretreatment Program. The Agency is hiring a firm to review and provide professional services associated with Agency's Pretreatment Program to support compliance with all applicable state and federal laws, the Clean Water Act, General Pretreatment Regulations, waste discharge requirements, and receiving water quality standards (Waste Discharge Requirements (WDRs)) imposed by the Lahontan Regional Water Quality Control Board, and Agency ordinances, rules, regulations, and prohibitions.

Task 1: Project Management

Carollo will prepare a work plan and schedule upon selection for this project. Throughout the project, Carollo will prepare monthly invoices and progress reports, as well as manage staff hours and ensure the budget and schedule are met. Carollo will conduct coordination calls and meetings, prepare meeting agenda and meeting minutes, as well as maintain action item lists and decision logs.

Carollo will conduct a kickoff meeting and five workshops with Agency staff and the Agency's legal counsel, as needed. The workshops will be used to obtain input from Agency staff and to present findings prior to the development of deliverables. These workshops will include:

- Data Review and POC Identification
- Program Review Workshop
- Ordinance and ERP Review Workshop
- Applications, Permits, and Local Limits Review Workshop
- Program Funding Review Workshop

Deliverables:

- Workplan and schedule
- Monthly invoices and progress reports
- Action items and decision log
- Meeting materials, agenda, and minutes

Task 2: Data Review and Determination of Pollutants of Concern

Task 2.1 Data Review and Analysis

Carollo will review operation of the WRP, including typical expected raw influent and plant effluent qualities and identify which constituents pose a potential risk to violating the Agency's Waste Discharge Requirements (WDRs). This task will involve:

- Accessing recent WRP data through the Agency's Plant Information Systems (PIS) database.
- Reviewing the operation of the WRP based on available raw influent, effluent, and biosolids quality data.
- Reviewing data associated with any instances of WRP process interference or pass-through.
- Comparing all WRP data with regulatory limits in the Agency's WDRs with requirements associated with current biosolids disposal practices.
- Review the Agency's existing industrial waste surveys received from customers and conduct additional surveys as necessary.

Deliverables:

- Draft memo summarizing the data review and the identified POCs
- Final memo based on Agency comments

Assumptions:

- The Agency will provide access to the PIS database and other databases or spreadsheets (if applicable) of plant data.

Task 2.2 Sampling Plan Development (Optional)

Carollo will work with the Agency to develop a sampling plan. This task will only be conducted if recommended based on the findings of Task 2.1. The sampling plan will outline the sampling approach, methods, frequency, and duration of in-plant and sector sampling, as needed.

Deliverables:

- Draft report of recommendations and sampling plan/schedule
- Final report of recommendations and sampling plan/schedule

Task 3: Review Pretreatment Program

Carollo will provide a high level review of the Agency's Pretreatment Program based on information provided by the Agency and any other relevant data and information, including, but not limited to NPDES limits, professional judgement, EPA guidance, and LWRQCB guidance.

The review will focus on the six minimum program elements, including:

- Legal Authority
- Procedures
- Funding
- Local Limits
- ERP
- List of SIUs

The initial review will identify gaps in the Agency's program and provide background information/analysis for tasks 4 through 8.

Based on a comparison of the current program with the six minimum elements of a national pretreatment, Carollo will identify gaps, and recommend updates and revisions. In addition, we will review the existing industrial discharge permit application and discharge permits, and develop recommendations for revisions.

Deliverables:

- Draft memo summarizing recommended changes to permits and program review
- Final memo summarizing recommended changes to permits and program review

Task 4: Legal Authority Pretreatment Ordinances

Carollo will provide detailed review of the Agency's existing ordinances with respect to sufficient establishment of legal authority to implement and enforce program requirements. This task will include:

- Auditing the Authority's existing ordinance based on the EPA model ordinance and EPA checklist.
- Identifying any conflicts or gaps in the ordinance with respect to pretreatment regulations, legal authority, internal consistencies, or other matters.

In addition, Carollo will review responsibilities of member districts and coordination with the Agency. Carollo will make recommendations as to whether interjurisdictional agreements with member districts would be beneficial and, if so, will develop recommendations for the key elements of these agreements and prepare a brief memo summarizing findings and recommendations.

Deliverables:

- Draft red-lined ordinance with proposed revisions
- Final red-lined ordinance with proposed revisions
- Draft memo on interjurisdictional agreements
- Final memo on interjurisdictional agreements

Assumptions:

- Prior to implementing any changes in the ordinance, the Agency will provide legal review to ensure consistency with state and local laws.

Task 5: Discharge Permits and Permit Applications

Carollo will provide detailed review of existing discharge permit applications and discharge permits, and develop recommendations for revisions. At the present time, there are no permitted industrial users (IUs) or SIUs, and the Agency has not identified a need to issue any permits in the past. This task will include:

- Reviewing the wastewater discharge permit application for consistency with the red-line version of the Agency's ordinances and pretreatment requirements, and developing proposed revisions, as needed.
- Reviewing the existing Wastewater Discharge Permit template (for SIUs or non-SIUs) for consistency with the red-line version of the Agency's ordinances and pretreatment requirements, and developing proposed revisions, as needed.
- Reviewing the existing Temporary Discharge Permit templates (if any) for consistency with the red-line version of the Agency's ordinances and pretreatment requirements, and developing proposed revisions, as needed.
- Creating new discharge permit templates for discharger types (up to eight) identified by the Agency. These templates may include but are not limited to general permits for non-SIUs and permits for residuals from groundwater treatment.

Deliverables:

- Draft electronic packet of draft permitting forms and templates, with table of contents, to include the revised permit application, discharger permit template, and temporary discharge permit template, and up to eight new permit templates for various non-SIU discharger types
- Final electronic packet

Task 6: Revised Local Limits

Carollo will review the Agency's existing Local Limits, MAHLs, and MAILs. This task will involve:

- Reviewing the full dataset used for the development of Agency's existing local limits including Maximum Allowable Headworks Loadings (MAHLs) and Maximum Allowable Industrial Loadings (MAILs) calculations.

- Reviewing the approach, assumptions, calculations, and conclusions to assess whether they are technically justifiable and reasonable.

Based on the review of the Agency's existing Local Limits, Carollo will develop recommendations for updates and/or revisions for the Agency's consideration and potential implementation. This scope of work assumes that development of new Local Limits will be required and that this will involve recalculation of the MAHLs and MAILs for selected POCs.

Deliverables:

- Draft memo summarizing the local limits review and recommended updates/revisions
- Final memo summarizing the local limits review and recommended updates/revisions
- Proposed edits or revisions to the Agency's ordinances and pretreatment requirements based on recommendations

Assumptions:

- It is assumed that the Local Limits for selected POCs will be revised.

Task 7: Enforcement Response Plan (ERP) Update

Carollo will provide a detailed review of the Agency's existing ERP to determine sufficiency and consistency with the ordinance (to ensure legal sufficiency). Based on this analysis, Carollo will develop an updated ERP that is tailored to the Agency's Pretreatment Program and needs. The ERP is expected to include:

- Program organizational chart
- Roles and responsibilities of Agency staff, legal counsel, and consultants
- Procedures for investigating noncompliance
- Procedures for responding to noncompliance
- Penalties and fees associated with non-compliance
- Procedures for appeal

For the development of the penalties and fees associated with non-compliance, Carollo will review approaches used by other agencies, establish the basis for various categories of costs, and develop a fee and penalty schedule for the Agency to recover costs incurred due to non-compliance (not intended to fund the entire Pretreatment Program), such as:

- Sampling and laboratory analysis fees
- Staff time for field work
- Replacement parts and materials

- Outside costs for cleaning, repair, replacement work, etc.
- Agency legal fees
- Administrative costs

Deliverables:

- Draft ERP
- Final ERP based on Agency comments

Assumptions:

- Legal review will be provided for and funded by the Agency to ensure consistency with state and local laws.

Task 8: Pretreatment Program Funding

Carollo will develop a proposed detailed annual budget for the Pretreatment Program based on the proposed program changes developed in previous tasks, and calculate estimated costs of implementation. This review will focus on the technical basis for the calculations of surcharge fees rather than the actual fees/rates. The proposed budget shall include:

- Any remaining work efforts required to update the Agency's Pretreatment Program
- Outline of all Pretreatment Program elements, corresponding tasks, and estimated staff hours
- Tasks assigned to Agency staff and associated labor estimates
- Tasks assigned to outside consultants and associated labor estimates
- Other direct costs
- Recommendations for IU permit fees (discharge application fee, annual permit fee, monitoring fee, etc.)

Additionally, Carollo shall review the calculations and methodology used to charge non-residential surcharge fees for wastewater strength parameters associated with connection fees or sewer rates for discharge to the WRP for treatment.

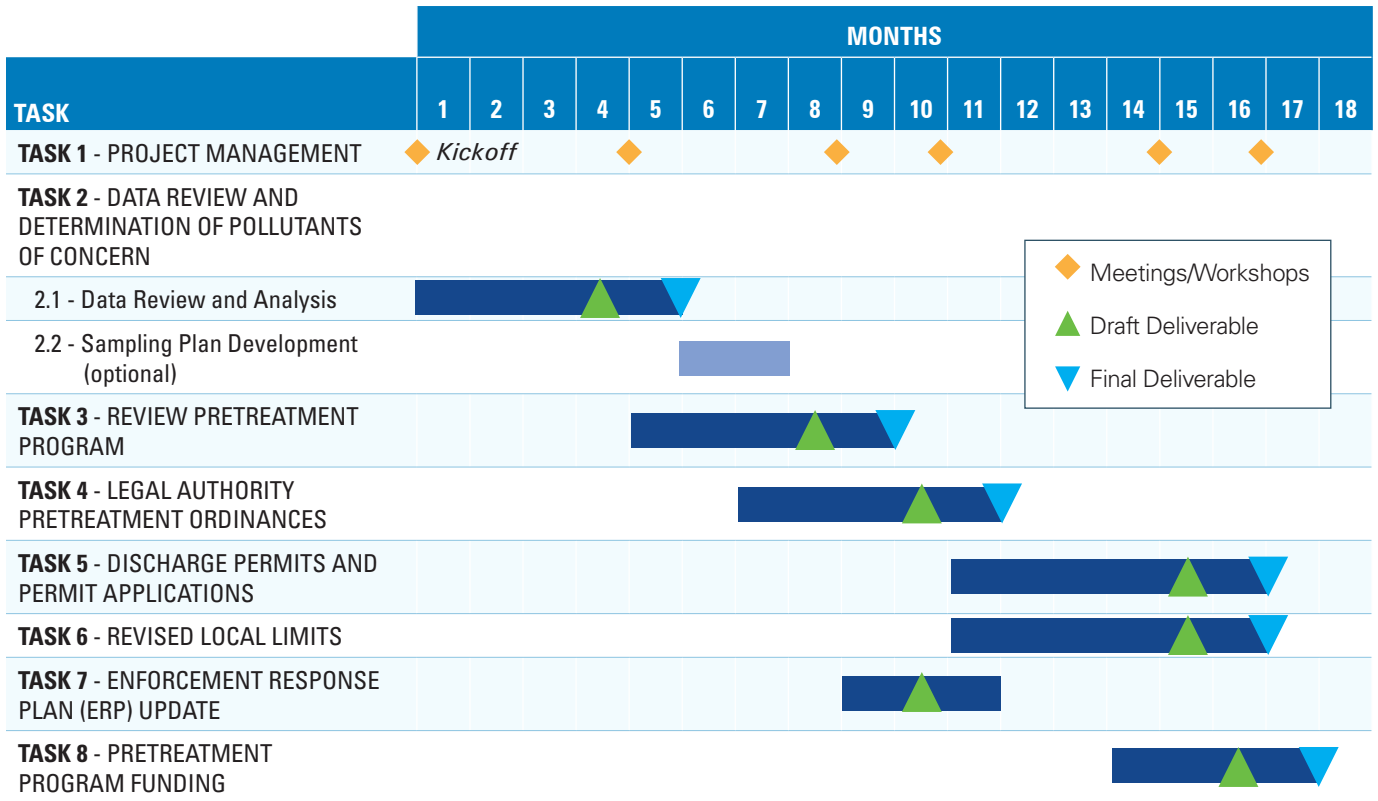
Deliverables:

- Draft summary memo on program funding
- Final summary memo on program funding based on Agency comments

Assumptions:

- Carollo will review and provide input on the technical basis (wastewater quality) for the calculations on surcharge fees for non-residential dischargers. It is assumed that an revisions to the rate structure will be provided by Agency's rate study consultant.

Project Schedule



List of Client References

City of Ventura JEREMY GRANT

Address: 501 Poli Street, Ventura, CA 93002
Email: j1grant@venturawater.net
Services Provided: Evaluated local limits for industrial discharge into the Ventura WRF and wastewater collection system.
Dates: 2020 - Present
Litigation: None

Bay County Utility Services GARY THRIFT

Address: 3410 Transmitter Road, Panama City, FL 32404
Email: gthrift@baycountyfl.gov
Services Provided: Pretreatment program assistance including NPDES permitting and local limits evaluations.
Dates: 2013 - Present
Litigation: None

City of Oxnard BADAoui MOUDERRES

Address: 305 West Third Street, Oxnard, CA 93030
Email: badaoui.mouderres@oxnard.org
Services Provided: Updated industrial local limits for the Oxnard Wastewater Treatment Plant.
Dates: 2015 - 2017
Litigation: None

Formerly of City of Morro Bay JOE MUELLER

Address: 595 Harbor Street, Morro Bay, CA 93442
Phone: 530.583.2342
Services Provided: Developed an Enhanced Source Control Program to fulfill potable reuse Title 22 requirements at their new WRF.
Dates: 2019 - 2020
Litigation: None

Insurance

Carollo maintains insurance to protect both our client and our firm against the types of claims that may be alleged to result from our services on this project.

Carollo carries the following insurance:

Coverage	Limits	Carrier
General Liability	\$1,000,000	Zurich American Insurance Company
Workers' Compensation	Statutory	Zurich American Insurance Company
Employer's Liability	\$1,000,000	Zurich American Insurance Company
Automobile Company	\$2,000,000	American Guarantee and Liability Insurance
Professional Liability	In excess of \$5,000,000	Continental Casualty Company (CNA)
Umbrella America	In excess of \$5,000,000	Travelers Property Casualty Company of America

Policy Numbers: (Call Carollo RMS for current information)

Contact Information:

All Insurance Policies

Lockton Companies
 444 W. 47th Street, Suite 900
 Kansas City, MO 64112-1906
 Phone: 816.960.9000

Fee Estimate

Task Description	Tim Loper (PIC)	Elisa Garvey (PM)	Kristel Baumgardner-Kranz (Project Engineer)	Mary Kate Forkan (Staff Engineer)	GIS Technician	Word Processing	Total Hours	Labor	Subs and Other Direct Expenses ²	Estimated Fee
TASK 1 - Project Management ¹	16	28	8	2	0	0	54	\$12,700	\$2,600	\$15,300
TASK 2 - Data Review & Analysis (includes only Sub Task 2.1) ³	0	6	20	60	0	0	86	\$13,500	\$2,700	\$16,200
TASK 3 - Review Pretreatment Program	0	6	16	32	0	2	56	\$9,000	\$2,700	\$11,700
TASK 4 - Legal Authority Pretreatment Ordinances	8	8	8	40	0	8	72	\$12,400	\$4,000	\$16,400
TASK 5 - Discharge Permits and Permit Application	2	12	12	80	0	12	118	\$18,900	\$3,900	\$22,800
TASK 6 - Revised Local Limits	2	20	70	150	0	4	246	\$39,000	\$11,400	\$50,400
TASK 7 - Enforcement Response Plan (ERP) Update	2	4	12	24	0	8	50	\$8,000	\$2,200	\$10,200
TASK 8 - Pretreatment Program Funding	8	18	8	24	0	4	62	\$11,900	\$2,400	\$14,300
TOTAL HOURS AND FEE (without optional task)	38	102	154	412	0	38	744	\$125,400	\$31,900	\$157,300

OPTIONAL TASKS

TASK 2 - Sampling Plan Development (includes only Sub Task 2.2) ³	0	8	20	40	8	4	80	\$13,200	\$4,100	\$17,300
TOTAL HOURS AND FEE (with optional task)	38	110	174	452	8	42	824	\$138,600	\$36,000	\$174,600

1. Includes Kickoff Meeting and 5 Workshops.
2. Includes subconsultant fees and PECE.
3. As outlined in our proposal scope of work, Task 2 consists of data review and the *optional* development of a sampling plan. Task 2 subtasks are therefore shown separately in the fee estimate.

Fee estimate assumptions:

- The Agency will be invoiced on a monthly basis.
- It is assumed that the Carollo local team members will attend meetings in person and travel cost will not be billed to the client. Penny Carlo Engineering, LLC will attend meetings remotely.
- Carollo standard fee schedule is on the next page.

Fee Estimate (ctd.)

Personnel	Rate
Tim Loper Principal-in-Charge	\$265
Elisa Garvey Project Manager	\$249
Kristel Baumgardner-Kranz Project Engineer	\$150
Mary Kate Forkan Staff Engineer	\$150
GIS Technician	\$205
Word Processing	\$130

Appendix A

Industrial Pretreatment Program Local Limits // CITY OF VENTURA

Carollo is conducting a local limits evaluation to evaluate and select technically-based local limits for industrial discharges into the Ventura WRF and wastewater collection system. The goals of the project are to prevent pollutants into the WRF that could affect operations, such as activated sludge, anaerobic digestion, and advanced treatment for recycled water; prevent pass-through of pollutants in concentrations that could violate water quality standards or the NPDES effluent limits; prevent excessive build-up of pollutants in the WRF biosolids that could limit biosolids uses or disposal alternatives; and protect worker safety in collection, treatment, and disposal systems. In addition, the evaluation considers the potential impacts of breweries, wineries, and cannabis facilities on treatment operations at the WWTP, the future purification facility, and attainment of water quality standards.

To date, Carollo has completed technical tasks and coordination efforts as part of this project, including:

- Detailed compilation of existing treatment plant data - Compilation and review of sector sampling data - Identification of POCs.
- Development of a sampling plan including development of a detailed process flow diagram with sampling location.
- Preliminary MAIL and MAHL for POCs - Analysis and reporting on emerging dischargers and potential impacts on the WRF and future purification facility.
- Evaluation of other constituents of concern for the future purification facility.



Project
Estimate/Final Cost:
\$150K/Same

Staff:
Elisa Garvey,
Kristel Baumgardner-Kranz

Local Limits Evaluation, Industrial Outreach, and Legal Authority Update // CITY OF OXNARD

Carollo was retained by the City of Oxnard to update its industrial local limits for the Oxnard Wastewater Treatment Plant (OWTP). The last update to its local limits was in 1999. The OWTP serves the City of Oxnard, City of Port Hueneme, a naval base, a community services district, and several surrounding unincorporated areas. The City permits 35 SIUs; 13 of which are CIUs.

The project established industrial antidegradation local limits for total dissolved solids (TDS) and Boron to avoid mandating industrial reductions of these constituents. Public outreach with industries, Chamber of Commerce, and Utility Task Force were provided as well as a 14-day sampling program for In-Plant and Residential Areas Ordinance and ERP Updates.

The OWTP is a secondary treatment facility with an average flow of 22 mgd and discharges to an ocean outfall. Some secondary effluent is further treated in an 8 mgd Advanced Water Purification Facility for treatment by MF/RO and advanced oxidation. The purified water will be used for landscape irrigation and discharged to spreading basins and injection wells for indirect potable reuse.

The study addressed the need to protect the beneficial uses of the reverse osmosis (RO) finished water and the City's IPR program. TDS and Boron were the two constituents that were most challenging in the project. Wastewater concentrations exceed levels that can be handled by the AWPF and industrial source reduction was found to be infeasible. The draft Local Limits Report was approved by the RWQCB within one month after submittal by the City.

Work performed and problems solved included:

- Utilized EPA's 2004 Local Limits Development Guidance.
- Developed, coordinated, and managed a sampling plan to screen for POC in four domestic/residential areas for seven days and process locations within the OWTP and AWPF for 14 days.
- Installed temporary flow meters and auto-samplers at the headworks and three plant recycle pipelines to characterize influent flows at the headworks. This was needed since there is no opportunity to meter or sample the OWTP influent upstream of plant recycle flows.
- Developed 19 new local limits, narrative limits for gross beta radioactivity, TDS, Boron, and several BMPs to strengthen source control of various industrial sectors.
- Evaluated Centralized Treatment of Boron at the AWPF to determine if adding new processes at the AWPF could be a feasible alternative to industrial pretreatment. Determined capital and O&M costs for ion exchange or Second Pass RO to the AWPF. Concluded centralized treatment was infeasible due to high costs.
- Developed "antidegradation" narrative limits for TDS and Boron for existing SIUs. SIUs will be required to maintain current discharge concentrations. This was found to be a reasonable solution to control wastewater concentrations without requiring costly pretreatment by SIUs.
- Conducted outreach meeting with SIUs, assisted City staff with follow-up meetings, presentations, and communications with industries.
- Updated the Sewer Use Ordinance and Enforcement Response Plan. Assisted City staff and City legal counsel during their final reviews of the documents.

Project
Estimate/Final Cost:
\$475K/Same

Staff:
Elisa Garvey,
Penny Carlo,
Kristel
Baumgardner-Kranz

Local Limits and Industrial Permit Updates // BAY COUNTY UTILITY SERVICES

Carollo has been assisting Bay County Utility Services (BCUS) with their pretreatment program since 2013. The last local limits evaluation was conducted in 2003, and in 2015, Carollo completed the industrial local limits for the Military Point Advanced Wastewater Treatment Facility (MPAWTF) as a requirement in BCUS's NPDES permit, issued by Florida Department of Environmental Protection (FDEP). The MPAWTF is a 7-mgd, 5-stage BNR facility that treats wastewater from six communities and discharges to an ocean outfall. Some unique issues of concern included hydrogen sulfide in one trunk line (600 ppm-1,000 ppm) and discharges of industrial solvents and pollutants associated with fire-fighting chemicals that interfere with nitrification. The local limits report was approved by the FDEP, and BCUS has implemented the new limits.

Project
Estimate/Final Cost:
 \$80K/Same

Staff:
 Penny Carlo
 Kristel
 Baumgardner-Kranz

Work performed and problems solved included:

- Developed a sampling plan to screen for POC to address the 15 national POCs identified by EPA, MPAWTF's current local limits, effluent reclaimed water, and biosolids permit limits. Screened recent data from the MPAWTF and various points within the collection system, prior instances of pass-through or interference at the MPAWTF.
- Utilized EPA's 2004 Local Limits Development Guidance.
- Reviewed and analyzed the sampling results and screened for outliers and data anomalies; determined source concentrations and loadings for the local limits analysis.
- Researched metals removal efficiencies at seven BNR facilities in Florida and compared the data to the MPAWTF removal efficiency data to justify removal efficiencies used in the local limits calculations.
- Developed local limits for 14 metals, total sulfides, hydrogen sulfide, pH, chloroform, MBAS, nonpolar oil and grease, BOD, TSS, TKN, and total phosphorous.
- Developed narrative prohibitions on the discharge of aqueous film forming foam, fluorosurfactants, and nitrate-based chemicals for odor control in the collection system to protect against interference of nitrification/denitrification.
- Developed narrative BMP limits for dental amalgam wastes discharged by dental practices.

In 2018, Carollo revised the industrial discharger permits to reflect the new local limits for the MPAWTF, changes to the sewer use ordinance, and to ensure consistency with the pretreatment provisions of the Florida Administrative Code.



Enhanced Source Control Program // CITY OF MORRO BAY

Carollo was hired to develop an Enhanced Source Control Program (ESCP) to fulfill Title 22 requirements for potable reuse at their new Water Reclamation Facility (WRF). Because the City did not have an existing industrial pretreatment program, the ESCP combined elements of a pretreatment program with a pollutant source control program. The ESCP not only prevents pass-through and interference at the wastewater treatment plant, but also controls the discharge of constituents of concern and protects drinking water quality.

As part of the ESCP, Carollo established brand new pretreatment program elements instead of submitting a formal industrial pretreatment program for approval through the National Pretreatment Program. The goal was to develop a program that would sufficiently protect the plant and provide potable water reuse regulators with the confidence that the water supply is and will continue to be adequately protected without imposing an unnecessary burden on the City. The City adopted the new sewer use ordinance and is moving forward with implementing Carollo's recommendations.

Work performed and problems solved included:

- Conducted an Industrial Waste Survey to identify and locate IUs in the sewershed with the potential to discharge wastewater that could impact the WRF. A list of industries and non-domestic commercial facilities was prepared with procedures for maintaining and updating the list moving forward.
- Updated the Sewer Use Ordinance to include a new pretreatment ordinance and FOG Control Program, giving the City legal authority to implement and enforce all elements of the ESCP. Discharge prohibitions were expanded and policies for IU permitting and monitoring requirements were established.
- Developed an Enforcement Response Plan to give the City formalized procedures for investigating and responding to instances of IU noncompliance. Based on the City's legal authorities and IU requirements established in the Sewer Use Ordinance, the ERP provided guidelines for enforcement steps and escalating enforcement steps depending on the nature of the noncompliance.
- Developed a Monitoring and Mapping Program that included both proactive monitoring such as maintaining an inventory of contaminants and routine monitoring of IUs and a rapid response action plan that helps the City respond to elevated concentrations and track the source of pollutants.
- Developed a Salinity Sampling Plan to help the City determine if there is capacity at the plant for salinity and if industrial source control (such as a TDS limit) is needed.
- The ESCP also included an Outreach Program to help the City communicate the requirements of the program to residential, commercial, and industrial dischargers, as well as a Funding and Resources Report to demonstrate that the City has sufficient resources to meet the financial requirements of the program.



Project

Estimate/Final Cost:

\$4.5M/Same

**This effort was completed as part of a larger program management effort and the budget was not tracked separately.*

Staff:

Penny Carlo,
Kristel
Baumgardner-Kranz



Elisa A. Garvey, Ph.D., P.E.

Dr. Elisa Garvey's experience includes water resources management, water quality assessments, regulatory and permitting support, master planning, and monitoring plan development/implementation.

Education

PhD Environmental Engineering, University of Massachusetts, 2000

MS Environmental Engineering, University of Massachusetts, 1995

BS Mechanical Engineering, Johns Hopkins University, 1993

Licenses

Civil Engineer, California

Professional Affiliations

International Water Association

Water Environment Federation

Relevant Experience

→ Project Engineer for the City of Ventura Local Limits Evaluation. Project involved identification of POCs, development of a sampling plan, data analysis, and MAIL and MAHL calculations to support local limits development. In addition, led an evaluation of emerging dischargers – breweries, wineries, and cannabis facilities, and associated potential impacts on treatment plant operations and pass through potential, as well a potential impacts to future purification facility (indirect potable reuse).

→ Project Manager for a confidential study on wastewater water flow and load characteristic from residential and non-residential dischargers. The study involved extensive collection system sampling, data analysis, and development of average characteristics for residential and non-residential dischargers.

→ Project manager for the Arsenic Mitigation Sampling Plan Re-Evaluation for Washoe County, Nevada. This study involved development and implementation of a sampling plan to identify sources of arsenic in the South Truckee Meadows Water Reclamation Facility collection system. Data analysis and findings were used to support development of a mitigation plan to reduce arsenic loads to the system.

→ Project engineer for the City of Fresno, California, Report of Waste Discharge and anti-degradation analysis for proposed recycled water projects. Responsibilities included development of the anti-degradation analysis report for the proposed recycled water program, with emphasis on potential impacts to nitrate and salinity in the underlying groundwater basins.

→ Project engineer for the Ventura County Watershed Protection District, California, Lower Santa Clara River Salt and Nutrient

Management Plan (SNMP). Responsible for providing technical and regulatory support for SNMP development. Key tasks included synthesis and evaluation of existing data, identifying overall recycled water goals and objectives, quantifying sources of salts and nutrients, and developing management measures.

→ Project Manager for the cities of Oxnard and Pleasant Valley, California, Salt and Nutrient Management Plan (SNMP). Responsible for leading the project team to develop the SNMP (ongoing), which involves groundwater basins characterization, groundwater quality assessment, evaluation of assimilative capacity, identification of sources of salts and nutrients, fate/transport modeling, management measures identification, anti-degradation analysis, and environmental review.

→ Project engineer for technical review of the Military Point Lagoon (MPL) Transparency Study. The Bay County Utilities Services Department, Florida, was required by a Florida Department of Environmental Protection (FDEP) Administrative Order to complete a Transparency Study in St. Andrews Bay to assess the impact of the MPL discharge on transparency within the bay and how transparency may be impacting seagrasses within the bay. Responsible for providing a technical review of the transparency study, with particular attention on the approach used to demonstrate attainment of FDEP standards.

→ Project Engineer for developing comment letters to the U.S. Environmental Protection Agency (EPA) on behalf of the Bay County Utilities Services Department, Florida. Responsible for developing comment letters to the EPA for (1) comments on the Florida Statewide Mercury TMDL, (2) comments on the Water Quality Standards for the State of Florida's Estuaries, Coastal Waters, and South Florida Inland Flowing Waters (Coastal Rule), and (3)

Elisa A. Garvey, Ph.D., P.E.

comments on Water Quality Standards for the State of Florida's Streams and Downstream Protection Values for Lakes: Remanded Provisions (Inland Rule). The comment letters addressed the rulemaking process, technical basis, and potential impacts on the regulated community.

→ Project Engineer for the City of Ventura, California, Special Studies as required by its NPDES permit. The Special Studies included an Estuary Subwatershed Study, Recycled Water Market Study, and Wetlands Feasibility study. The Estuary Study focused on determining if the existing wastewater treatment plant discharge provides an enhancement to the receiving water (Santa Clara River Estuary) under current or alternative discharge flow conditions. As the allowable discharge flow will eventually be written into the City's NPDES permit, this project involves coordination and communication with the Regional Water Quality Control Board and resource agencies.

→ Planning Lead for the Orange County Water District (OCSD), California, PFAS Treatment Systems Planning Study. Led the planning for the assessment of alternatives including blending, centralized treatment of individual wells, and possibly centralized treatment to meet OCSD's challenges with PFAS contamination in the Orange County Groundwater Basin.

→ Project manager for the City of Bakersfield, California, Stormwater Management Plan (SWMP) Update. Per requirements of a new Phase 1 Stormwater Permit, the City was required to update its SWMP, which involved a significant expansion in stormwater management scope and responsibility. Responsibilities included leading two workshops with City and County staff to outline new SWMP components, identify responsible parties, and establish an implementation schedule. Provided technical oversight and responsibility for updating the SWMP, which was approved by the Central Valley Regional water Quality Control Board.

→ Project engineer for the City of Reedley, California, Phase II storm water permit

compliance. This project involved developing the City's annual report for the previous Phase II permit compliance and developing a guidance document per the new Phase II permit. Development of the annual report involved a review of storm water program activities, meetings with various City staff that were responsible for program elements, and compilation of the data and documents into the annual report. As part of the guidance document development, we conducted preliminary evaluation of the gaps between the City's previous storm water management program and the future program designed to meet the new permit. This information was compiled into the guidance document template provided by the SWRCB.

→ Project engineer for evaluation of a biomimicry inspired mixing technology designed by PAX Scientific. The primary objective of the study was to assess the ability of the PAX mixer to induce and maintain a thermally mixed condition in several drinking water supply reservoirs. Project tasks included developing the experimental plan, conducting the field studies and data analysis, and preparing a report summarizing the study.

→ Project manager for the Bay Area Clean Water Agencies (BACWA), California, Storm Water Diversion White Paper and Analysis. The driver for the project was interest amongst regulators in implementing stormwater diversion projects in northern California for the purpose of reducing concentrations of mercury and PCBs in stormwater runoff to San Francisco Bay. The objective of this White Paper is to identify the challenges and opportunities associated with diversions of flow from stormwater systems to a publicly owned treatment works. Carollo developed the White Paper using published and grey literature and case studies from several agencies, including the City of Los Angeles, Orange County Sanitation District, City of Ventura, City of Santa Cruz, and East Bay Municipal Utility District. The final white paper documents the institutional, technical, and economic challenges and the opportunities associated with stormwater diversions.



Timothy J. Loper, P.E.

Timothy Loper has 19 years of experience in wastewater collection system modeling, water distribution system modeling, water system feasibility studies, wastewater treatment facilities planning, and infrastructure master planning.

Education

MS Environmental Engineering, University of California, Berkeley, 2005

BS Civil Engineering, California State University, Fresno, 2003

Licenses

Civil Engineer, California, Nevada

Professional Affiliations

Nevada Water Environment Association

American Water Works Association

Relevant Experience

→ Technical Advisor for the South Tahoe Public Utility District, California, Big 5 Pump Station Condition Assessment, which includes in-field condition assessments for five pump stations with capacities up to 5,200 gpm.

→ Principal-in-Charge for the South Tahoe Public Utility District, California, Sewer System Hydraulic Model. This is an ongoing project. No changes or updates have been made to the District's wastewater collection system model that was created 10 years ago using Innovyze InfoSewer hydraulic modeling software. In the last decade, additional infrastructure construction and collection system changes have been made. This contract allowed for on-call hydraulic modeling support to evaluate the existing model, identify potential improvements, and convert the model to InfoSWMM.

→ Project Engineer for the OneWater Morro Bay Master Plan, City of Morro Bay, California. The project included water system field data gathering (pressure logger installation, SCADA system data gathering, and fire flow test data). That information, combined with the City's GIS and as-built drawings, was used to develop dynamic hydraulic (water and sewer) and hydrologic (stormwater) models for those systems. The calibrated models were used to evaluate each system under both current and future scenarios. Based on this evaluation, deficiencies were identified and the associated improvements necessary to eliminate these deficiencies were determined.

→ Project Engineer for the City of Arvin, California, Wastewater Treatment Plant Expansion. Responsible for preparation of population projections, in-depth review of regulatory requirements, and development of preliminary cost estimates. The capacity of the existing oxidation ditch is 2.0 mgd. The master plan recommended an expansion project to double plant capacity

to 4.0 mgd by 2030. Recommendations included oxidation ditch upgrades, parallel oxidation ditch facility, new remote solar drying area, and addition of new percolation ponds.

→ Project Engineer for City of Ridgecrest, California, Wastewater Treatment Plant Expansion. Responsible for preparation of population projections, in-depth review of regulatory requirements, and development of preliminary cost estimates. The City is planning a new wastewater treatment facility at a new site located within the city limits. The current site is located within the China Lake Naval Air Weapons Station. Alternative means of effluent disposal have been investigated such as geothermal well injection. The new plant will be sized to treat flows up to 3.0 mgd. Treatment alternatives investigated include membrane biological reactor, extended aeration activated sludge, and sequential batch reactors.

→ Principal-in-Charge for the City of Millbrae, California, Madrone Pump Station. Carollo provides recommendations for pump station upgrades, design, and rehabilitation. Project includes increasing pump station capacity and improvements for power, backup power generation, and the existing wet well.

→ Project Engineer for City of Taft, California, Domestic and Federal Prison Wastewater Treatment Plant Expansions. Responsible for preparation of population projections, in-depth review of regulatory requirements, and development of preliminary cost estimates. The City is planning to construct a new domestic treatment facility to replace aerated ponds. The new plant will be sized to treat flows up to 3.0 mgd. Treatment alternatives investigated include membrane biological reactor, extended aeration activated sludge, and sequential batch reactors. The City is planning to double the capacity of the federal prison treatment plant, remove effluent discharge from Sandy Creek, and

Timothy J. Loper, P.E.

construct agricultural reuse and percolation ponds.

→ Collection System Lead for the City of Grand Junction, Colorado, Persigo Wastewater Treatment Plant Master Plan Development. The project included development of a flow monitoring program to collect data on system flows and calibrate them to wet weather system response. Carollo developed an InfoSWMM model based on the City's GIS. Tim's responsibilities included scope development, quality control, and review of deliverables.

→ Project Manager for Vallejo Flood and Wastewater District, California, Collection System Master Plan. Responsible for day-to-day management and technical direction, including District and subconsultant coordination, progress meetings, and communication. Provided technical direction for development of the flow monitoring program, hydraulic model construction and calibration, and development of the inspection and rehabilitation program.

→ Collection System Lead for the City of Riverside, California, Comprehensive Wastewater Master Plan. The Master Plan included both treatment and wastewater collections. Carollo built the City's collection system model using Innovyze's InfoSWMM modeling software.

→ Collection System Lead for the West County Wastewater District (WCWD), California, District-Wide Master Plan. The project included the sanitary sewer collection system; Water Pollution Control Plant (WPCP); and non-process facilities such as administration, laboratory, storage, and maintenance. Work efforts included a condition assessment/capacity assessment, alternatives evaluation, and 20-year capital improvement program (CIP) development. All of WCWD's facilities were combined in one master plan, allowing the needs of each to be prioritized in an overall program. Other work efforts included a risk-based analysis of all 12,000 assets to identify failure likelihood, BioWin modeling to assess capacity, 3-D computational fluid dynamic (CFD) modeling of secondary basins to

optimize performance, and a wet weather capacity improvements assessment of the 249-mile collection system.

→ Project Manager for the Shasta Lake 2016-2026 Water Master Plan, City of Shasta Lake, California. The project included development of a new water system hydraulic model based on the City's most recent GIS database of the water distribution system. The water distribution system hydraulic model was developed using the InfoWater hydraulic modeling software package, developed by Innovyze, Inc. The hydraulic model was calibrated using a three-step calibration approach, including a macro calibration, steady state (fire flow test) calibration, and an extended period simulation calibration.

→ Principal-in-Charge for the City of Reno, Nevada, Northwest Reno Sewer Capacity Analysis and Master Plan. Carollo was retained to conduct a sanitary sewer capacity analysis and develop a master plan for the City's Northwest area. The team developed a temporary flow monitoring program; reviewed the City's existing SewerGEMS model to expand the existing wastewater collection system hydraulic computer model, including nine major trunk lines; calibrated the model using flow monitoring data; reviewed planning documents to determine existing and build-out wastewater flow projections; modeled existing and future system capacity evaluations; and developed prioritized, recommended capacity projects based on deficiencies.

→ Principal-in-Charge for the Ongoing Truckee Sanitary District, California, 2017 Hydraulic Modeling Assistance. The District hired Carollo provide assistance with the development and calibration of three of their four existing wastewater collection system models. The models are being calibrated to peak dry and peak wet weather flow conditions using flow monitoring data from the 2016 and 2017 storm season.

Penny Carlo, P.E.

President

Summary

Penny Carlo has 30 years of experience in industrial pretreatment and source control management for water reclamation facilities and reuse programs. Ms. Carlo helps utilities realize the linkages and continuity between their pretreatment program, potable reuse program, and facility operations. She has assisted municipal clients in five states and four EPA regions with all aspects of their pretreatment programs, including development of robust monitoring programs to substantiate local limits development. Her work includes assisting with responses to EPA compliance inspections, updating sewer use ordinances, development of fees and administrative fines, development of industrial user permits, communications with IUs, and incorporation of FOG programs into pretreatment programs. She has developed several pretreatment programs from scratch, affording her with a broad understanding of this national program.

Professional Experience

- Project manager for the City of Oxnard Local Limits Evaluation to address potable reuse. The City regulates 35 SIUs and hundreds of non-SIU/commercial dischargers. The project included updating the Local Limits, Enforcement Response Plan (ERP), Pretreatment Ordinance, and assisting with industry outreach. The Oxnard Wastewater Treatment Plant (OWTP) serves the City of Oxnard, City of Port Hueneme, two naval bases, and several surrounding unincorporated areas. The OWTP is a secondary treatment facility, followed by an Advanced Water Treatment Facility (AWPF) producing purified water for irrigation and augmenting the City's water supply by indirect potable reuse (IPR). Developed new local limits to address protection of highly purified finished water as well as the secondary effluent discharge to the ocean. Developed and implemented a sampling plan for 7 days of sampling in four residential trunk sewers, and 14 days within the OWTP and AWPF.
- Assisted Manatee County, Florida with three pretreatment program elements. The County owns and operates three water reclamation facilities and operates a state-approved program. 1) Performed the 5-year evaluation of the adequacy of the current local limits for Manatee County, Florida, in accordance with their NPDES permit. Conducted a headworks loading analysis and determined the current local limits are still protective of the three WRFs in the region. 2) Evaluated the adequacy of the County's Sewer Use Ordinance to provide sufficient legal authority to deny a permit application or condition a discharge from potential new industries. Reviewed the SUO for consistency with 40 CFR 403 and the Florida Administrative Code. 3) Evaluated the need for the chloride local limit and concluded the limit is not needed. Chloride loadings come from I/I in the system, and not from industries. Prepared justification to eliminate the limit, which was submitted to the Florida DEP.
- Co-principal investigator for the Collection System Real Time Monitoring (RTM) Demonstration Project, funded by the Water Research Foundation, to demonstrate at the full-scale, real time wastewater collection as a part of Enhanced Source Control Programs for potable reuse. The project involved conducting six-month trials within the cities of Ventura and El Paso, and Clean Water Services in Portland. Using a distributed sensor network the value of these systems for real-time monitoring to identify, alert, evaluate, and trigger mitigation responses to illegal or accidental dumping events within the collection system, was evaluated.
- Technical Advisor for the City of Morro Bay Industrial Pretreatment Program (IPP) Development. The City does not have an IPP, due to the small size of the treatment facilities (1 mgd) and lack of industrial base. With plans to implement potable reuse, an IPP is needed to control the discharge of pollutants that might impact the production of purified water from the advanced water purification facility. Project elements include the development of a new pretreatment ordinance, enforcement response plan, and industrial waste survey. Two SIUs with potential to discharge high salinity were identified. Assisted with preparation of a focused sampling plan to support development of industrial limits for salinity. Assisted with development of SIU permits.
- Technical advisor for the City of Ventura Local Limits Evaluation Update in accordance with their NPDES permit. The City is planning to implement potable reuse. The new local limits are being developed to consider the linkages with current conditions



Education

MS Civil Engineering,
California State
University, Fresno,
1991

BS Microbiology,
University of Wyoming,
1975

Professional Registration

Civil Engineer,
California Lic#C55379

and the planned potable reuse program. Project elements include evaluating available data, developing a sampling plan to support the local limits computations, and development of new local limits. This work is currently underway. Assisted with the review of potential impacts from emerging dischargers on the Ventura WWTP. The emerging dischargers evaluated were breweries, wineries, and cannabis facilities.

- Project manager for the City of Tulare, California, Pretreatment Program Modifications in 2011-2014 to address recommendations of an EPA pretreatment compliance inspection. Updated the pretreatment ordinance to include streamlining: a fats, oils, and grease control program; and changes to the electrical conductivity and pH local limits. Developed a management practice for Significant Industrial Users to use aqua ammonia for pH adjustment, with a corresponding EC credit for the added ammonia. Conducted a new Industrial Waste Survey. Evaluated the need for BOD₅ and TSS local limits and concluded they were not necessary. Developed industrial user permit fees and an annual permit fee schedule for industrial users. Prepared a notification packet and standard handout materials for food service establishments (FSEs). Prepared permit templates for Non-Significant Industrial Users. Inspected and permitted FSEs, dry cleaners, and silver recovery dischargers.
- Technical lead for development of Best Management Practices (BMPs) for Centralized Waste Treatment (CWT) facilities for the City of Oxnard. One of the largest CWTs in the state was located within the service area. The CWT discharged high levels of gross beta radioactivity that caused pass-through at the WWTP. The BMPs establish minimum treatment and monitoring requirements and strengthen the City's authority to control discharges from this industry type.
- Technical Lead for a salinity spiking experiment for Clean Water Services in Portland, OR. The purpose of the experiment was to verify the reliability of salinity sensors and autosamplers to respond appropriately to a simulated pollution event. Developed experimental protocol to discharge saturated brine into the sewer, causing an EC spike to trigger the automated sensor and sampling equipment to capture the slug at downstream locations.
- Developed industrial discharge permits for several agencies. Permits have included individual SIU permits, CIU permits, general permits for non-SIUs, IU zero discharge permits, and interagency agreements. Clients include Bay County Utility Services, cities of Reedley, Tulare, and the Kern Sanitation Authority.
- Lead Engineer for the updated of the sewer ordinance for King City, California to address the Federal Pretreatment Regulations. The need to update the ordinance was driven by an influx of medical cannabis cultivation (MCC) facilities interested in locating within the City. Project involved meeting with MCC business owners and assessing potential wastewater discharges. Ms. Carlo presented the program to the City Council. The new ordinance was adopted by unanimous consent. She is currently assisting the City with the development of the SIU permit for the first MCC business to begin discharge. The permit will serve as a template for subsequent MCC businesses.
- Project manager for local limits evaluation for the Military Point Advanced Wastewater Treatment Facility in Panama City, Florida. Some unique issues of concern included 1,000 ppm hydrogen sulfide in a trunk line, industrial solvents, and pollutants associated with firefighting chemicals that interfere with nitrification. Six communities and 3 industries are permitted to discharge into the Facility and are subject to the industrial pretreatment program.
- Developed a basis for collecting administrative fines for SIU permit violations, as well as cost recovery for expenses incurred to enforce the sewer ordinance, for the cities of Reedley, Tulare, and Bakersfield. Developed annual pretreatment fees and permit application/renewal fees for SIUs, based on a 16-city survey.
- Developed and managed comprehensive "full service" sampling programs to characterize wastewater sources in collection systems and within treatment facilities, for the cities of Tulare, Reedley, Hanford, and Oxnard. Collected 24-hour, flow-proportioned composite and grab samples. Developed schedules and logistics to assure smooth implementation of the sampling program. Trained field crew. Managed all preparatory work.
- Developed full pretreatment programs from scratch for the cities of Reedley, Tulare, Hanford, and the Kern Sanitation Authority.



Kristel M. Baumgardner-Kranz, P.E.

Kristel Baumgardner-Kranz has experience working on wastewater treatment, water treatment, and water recycling projects including indirect potable reuse. Her experience includes process design for a recycled water facility, development of uniform and site-specific local limits for industry dischargers, and preparation of regulatory compliance reports for land application of biosolids. Kristel has provided engineering support for reverse osmosis design criteria development, preparation of a work plan and schedule for developing a TDS limit for groundwater recharge, and bench-scale and pilot-scale testing for ultrafiltration membrane process evaluation. She also has experience preparing Annual Reports, Nutrient Management Plans, and Waste Management Plans for dairy clients.

Education

MS Civil and Environmental Engineering, University of California, Davis, 2013

BA Anthropology, University of Wyoming, Laramie, 2000

Licenses

Civil Engineer, California

Professional Affiliations

California Water Environment Association

Relevant Experience

→ Staff Engineer for the City of Fresno, California, East Central Recycled Water Facility Phase 1 Schematic Design.

Responsible for chemical pump and tank sizing, chemical room design, and odor control system sizing and design.

→ Staff Engineer for the City of Porterville, California, WWTP Master Plan Site Evaluation. Responsible for determining repair and replacement (R&R) needs and near- and long-term strategies to be incorporated in the Capital Improvement Program. Involves developing annual R&R costs and life cycle costs.

→ Staff Engineer for the City of Oxnard, California, Local Limits Evaluation. The project updated the City's industrial local limits and developed a new salinity local limit for the Oxnard Wastewater Treatment Plant. Responsible for site-specific industry allocations and biosolids-to-landfill calculations.

→ Project Engineer for the City of Bakersfield, California, Local Limits Evaluation. Responsible for updating the City's industrial local limits.

→ Project Engineer for the City of Porterville, California, 5-Year Biosolids Management Plan, Pre-Application Report, and Feasibility Study for Alternative Land Use. Responsible for biosolids-to-land application nutrient loading calculations and crop rotation scheduling.

→ Staff Engineer for the Hi-Desert Water District, California, Wastewater Reclamation Project TDS Study. Developed TDS Study Work Plan and Time Schedule required by

the District's Waste Discharge Requirements.

→ Staff Engineer for the City of Fresno, California, Fresno-Clovis Regional Wastewater Reclamation Facility Electronic Information Management System, which provides an integrated platform for plant-wide access to vital operations and maintenance information. Responsible for content development and data management.

→ Staff Engineer for User Permit Development for Bay County, Florida. Responsible for developing new permits for dischargers to the sewer system to incorporate updated local limits and regulatory requirements.

→ Staff Engineer for the Modesto Irrigation District, California, Modesto Regional Water Treatment Plant Phase II Expansion Redesign. Responsible for bench-scale and pilot-scale testing.

→ Staff Engineer for the City of Sacramento, California, Water Treatment Plants Rehabilitation Electronic Operations and Maintenance Manual. Responsible for data management.

→ Staff Engineer for the Jordan Valley Water Conservancy District, Utah, Distribution System Water Quality Evaluation Modifications Geocoding. Responsible for geographic information systems (GIS) projections, GIS map development, and geocoding customer complaint data.

→ Staff Engineer for the City of Delano, California, biottta™ Wellhead Treatment Pilot and Demonstration Project.

Kristel M. Baumgardner-Kranz, P.E.

- Staff Engineer for the Madera Irrigation District Groundwater Basin Plan and Monitoring Network, Madera, California.
 - Engineer for City of Visalia, California, Undisinfected Secondary and Disinfected Tertiary Title 22 Recycled Water Permitting Services. Responsible for nitrogen balance development and calculations. Identified modifications needed at golf course and park to bring these recycled water use areas into compliance.
 - Staff Engineer for City of Ukiah, California, Phases 1 and 2 Recycled Water Pipeline Final Design. Responsible for nitrogen balance development and calculations.
 - Engineer for the City of Pismo Beach, California, Indirect Potable Reuse project. Established feed water characteristics and influent design criteria for design of the new reverse osmosis facilities.
 - Project Engineer for the Settlement Allocation Model for the Westlands Water District Growers, California, represented by Kershaw, Cook, & Talley. Developed a model to allocate settlement money to landowners negatively impacted by lack of drainage. Responsible for groundwater depth interpolation, calculation of damages, application of parcel ownership data, development of findings and conclusions, and preparation of the project report.
 - Staff Engineer for the Groundwater Basin Setting, Analysis, and Database Development for Madera Irrigation District, California, Developed crop water demand calculations and preliminary surface water balance within the local GSA boundary.
 - Staff Engineer for the City of Bakersfield, California, 2017 Land Management Report. The project included preparation of the City's Annual Agricultural Land Management Report and other land management reporting activities.
 - Prepared a master's project titled "Monitoring and Removal of Pharmaceuticals and Personal Care Products: Overview and Recommendations for the University of California Davis Campus Wastewater Treatment Plant".
- Researched indicator compounds for removal of pharmaceuticals and personal care products (PPCPs) at wastewater treatment plants. Investigated biodegradation, adsorption, and UV irradiation for PPCP removal at the Wastewater Treatment Plant (highlighted photolysis of PPCPs with a UV disinfection system and advanced oxidation processes).
- Dairy Consultant for Central Valley agricultural clients. Calculated volume, solids, and nutrient loading of manure and wastewater, as well as land application rates and storage capacity on dairies. Developed Annual Reports, Nutrient Management Plans, and Waste Management Plans for dairy waste management and regulatory compliance. Special projects included a groundwater elevation model for Westlands Water District growers, water needs and irrigation report for the Arvin-Edison Water District, and groundwater report for Prison Industries Authority-Corcoran.
 - Conducted a Green Design Project on Water and Wastewater System Design for a Campus Residence (Integrated Planning and Design for Green Civil Systems). Planned and designed water and wastewater systems for a sustainable on-campus residence. Set goals, worked with residents, produced deliverables, and calculated costs for each project element including a pilot-scale tertiary wastewater recycling plant, selection of disinfection technology, trickling filter for biological oxygen demand and nitrogen removal, rainwater system, laundry-to-landscape graywater system, and composting toilet.
 - Education Lead for an Engineers Without Borders project in Nkokonjeru, Uganda. Helped implement a urine diversion dehydration toilet and led two educational community workshops on its benefits and proper use. Helped build a rainwater harvesting system to serve a local orphanage. Conducted surveys and visited homes to educate locals on the proper use of biosand filters and dome-slab latrines. Responsible for research, calculations, reporting, water testing, construction oversight, and hands-on participation in various construction tasks.



Mary Kate Forkan

Mary Kate has 3 years of experience in wastewater treatment operations, mining remediation, and site management. She assists Carollo's hydraulic modelers to create models for municipal master planning and development analysis. Mary Kate also has familiarity with NPDES permit conditions and IU user types.

Education

MS Hydrogeology from
University of Nevada
Reno, August 2017

BS in Geosciences from
Trinity University, May
2015

Professional Affiliations

AGU Great Basin Chapter
Nevada Water Resources
Association

Relevant Experience

→ Staff Professional for the Ongoing Lantern Cove Apartment Complex Project in Foster City. Carollo provided a sewer collection and water distribution analysis to determine if the proposed development would have a negative impact on the current sewer and water systems. Carollo created a miniature sewer model and updated the City's current water model as products for the Project.

→ Staff Professional for the Ongoing Visalia Sewer Collection System Analysis and Master Plan. Carollo was retained to conduct a sanitary sewer capacity analysis and develop a master plan for the City. The team developed a temporary flow monitoring program; reviewed the existing InfoSWMM model; calibrated the model using flow monitoring data; reviewed planning documents to determine existing and build-out wastewater flow projections; modeled existing/future system capacity evaluations; and developed prioritized, recommended capacity projects based on deficiencies.

→ Staff Professional for the Ongoing Vallejo Flood and Wastewater District (VFWD) Sewer Collection System Master Plan. The Project scope includes flow monitoring to review the existing hydraulic model; calibrating the model using flow monitoring data; review planning documents to determine existing flow projections; and recommending rehabilitations projects.

Previous Experience

→ Project Oversight of a California Superfund Remediation Site. Mary Kate was responsible for coordinating multiple subcontractors, troubleshooting system errors, maintaining operations of two water treatment facilities, and providing design assistance to the Engineering Staff when necessary. Other achievements included implementing improvements to site flow

monitoring systems, creating new Best Management Practices for site stormwater, and revamping site safety documents.

Publications/Presentations

→ Breitmeyer, R.; Stewart, MK; Huntington, J. "Evaluation of Gridded Meteorological Data for Calculating Water Balance Cover Storage Requirements." *Vadose Zone Journal*. August 23, 2018.

→ Oakley, D; Fisher, D; Gardner, T; Stewart, MK. "Uplift Rates of Marine Terraces as a Constraint on Fault-Propagation Fold Kinematics: Examples from the Hawkswood and Kate Anticlines, North Canterbury, New Zealand." *Tectonophysics*. January 2018.

→ Stewart, MK. "A Statistical Comparison Between MET Station Data and Remotely-Sensed Data for Calculating Required Storage in Water Balance Cover Systems." Poster presented at the Denver GSA Conference, September 26, 2016.

→ Stewart, MK. "Uplift Rates of Marine Terraces and Anticlinal Growth along the North Canterbury Fold and Thrust Belt, New Zealand." Poster presented at the San Francisco AGU Conference, December 16, 2015.

→ Stewart, MK. "Assessing the Likelihood of Groundwater contamination from Hydraulic Fracturing in the Eagle Ford Shale: A Map Based Analysis of the Eagle Ford and Overlying Aquifers." Poster presented at the 2013 Austin GSA Conference.



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: V-4
Subject: Discussion of Administrative Building front entry landscape improvements

Background

The Agency has maintained the existing Administrative Building front entry for decades. Over the past recent years, the irrigation system and layout has required increased maintenance hours, the walkway bridge across the 2-water pond is not utilized and was structurally compromised, and the 2-water distribution system from the 2-water pond required maintenance as the landscape around the pond negatively impacted the pond. The Agency has removed the walkway bridge and planned on improving the entry landscape to reduce maintenance requirements.

The Agency consulted with High West Landscape Architects to provide an irrigation plan, planting plan and general improvements to the Administrative Building front entry landscape. They have provided a plan to:

- Remove and replace the existing plants and trees within the entry way and 2-water pond with plants and trees requiring less maintenance.
- Install artificial turf and gravel around the 2-water pond.
- Remove and replace the concrete walkway with concrete pavers.
- Install gravel around the perimeter of the entry and rebuild the planters along the front of the entry with Corten Steel.
- Replace the irrigation system.

The 75% design plans are attached for your reference.

Once the plans are finalized, the Agency expects to contract with a contractor for the improvements. It should be noted, the Agency has staff capable of completing the plans, however, management believes staff are better utilized on maintaining plant processes and a contractor would be more expedient in completing the work.

Fiscal Impact

To be determined upon 100% design completion.

Attachments

High West Landscape Architects plans.

Recommendation

Management and staff recommend the Board of Directors review the entry landscape improvement plans and provide feedback for potential changes so staff may finalize the plans.

Review Tracking

Submitted By:  _____
LaRue Griffin
General Manager



HIGH WEST
LANDSCAPE ARCHITECTS

10069 WEST RIVER ST.
SUITE #4C
TRUCKEE, CA. 96161
28 VINE ST.
RENO, NV 89503
530.553.4000
CA. LIC. 45668, 5717
NV. LIC. 630

CONSULTANT:

PREPARED FOR:

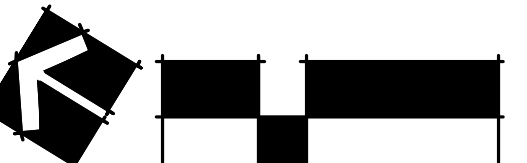
**EXISTING
PLAN**

SEAL:

THIS DRAWING IS PROVIDED AS AN INSTRUMENT OF SERVICE BY HIGH WEST LANDSCAPE ARCHITECTS, AND IS INTENDED FOR USE ON THIS PROJECT ONLY. ANY REPRODUCTION, USE OR DISCLOSURE OF INFORMATION CONTAINED HEREIN WITHOUT PRIOR WRITTEN CONSENT OF HIGH WEST LANDSCAPE ARCHITECTS IS STRICTLY PROHIBITED. (c) COPYRIGHT 2021 BY HIGH WEST LANDSCAPE ARCHITECTS

REVISION DATE

DRAWN BY: SH CHECKED BY: JPP



DATE: 8-27-21

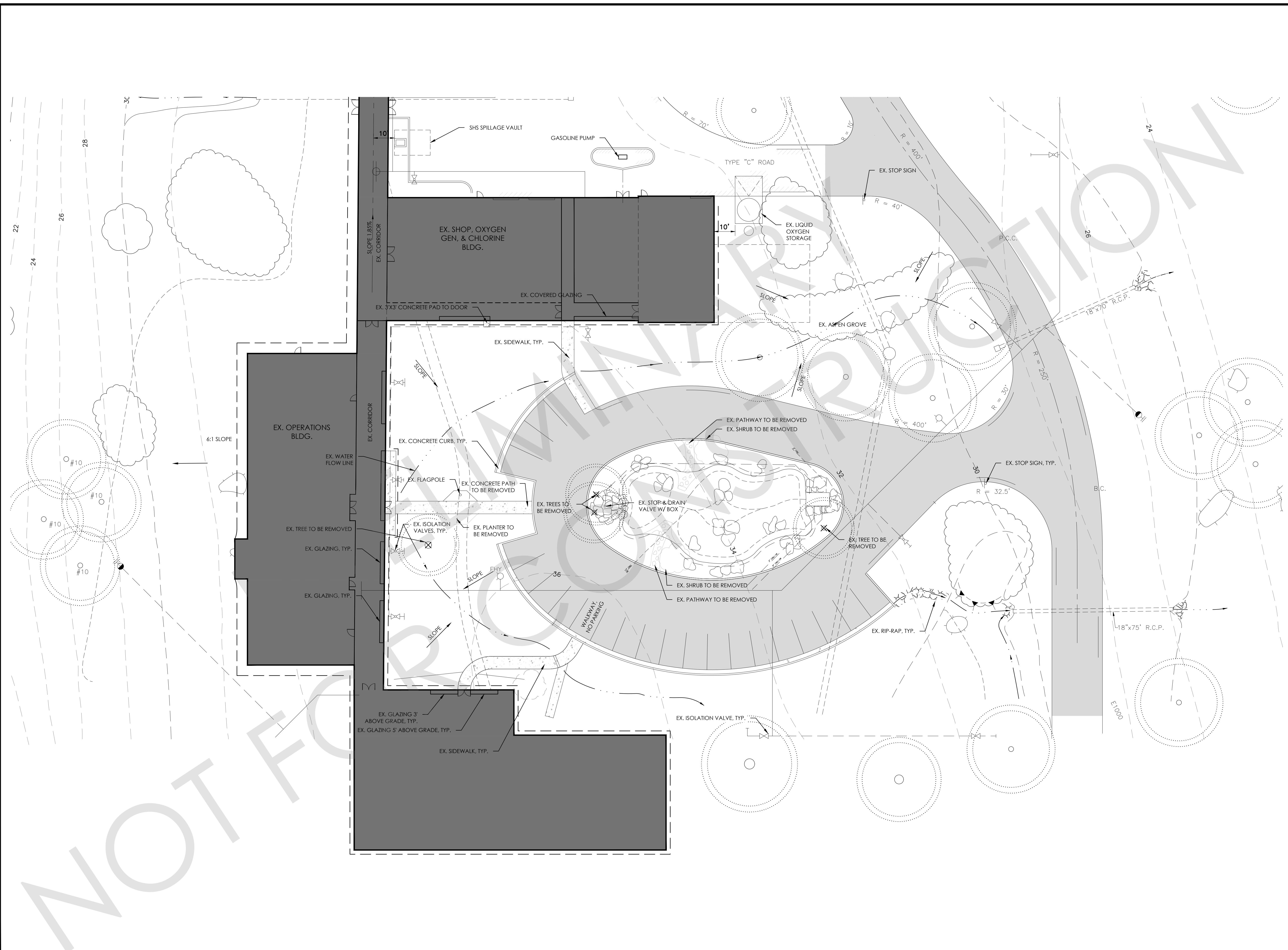
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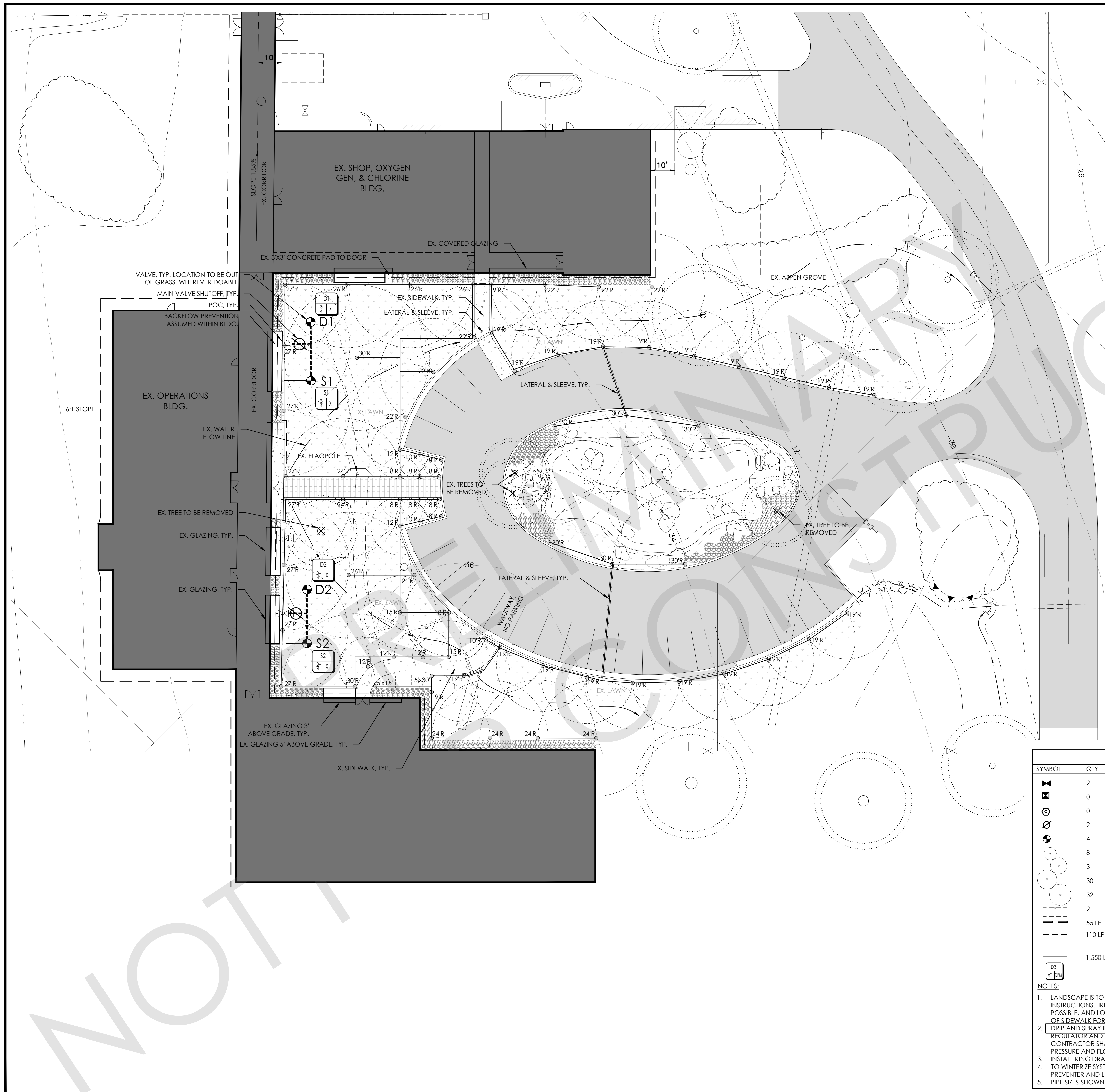
TSA
13720 BUTTERFIELD DR
TRUCKEE, CA. 96161

SHEET TITLE:
EXISTING PLAN

DRAWING NUMBER:
L1.0

PROJECT#





- ### IRRIGATION NOTES
- THIS IRRIGATION PLAN HAS BEEN DEVELOPED TO FULFILL TOWN OF TRUCKEE'S REQUIREMENTS. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OR OWNER IF ANY DISCREPANCIES OCCUR ON SITE. ANY AND ALL SUBSTITUTIONS SHALL BE APPROVED PRIOR TO INSTALLATION.
 - INSTALLING CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND AREAS PRIOR TO START OF JOB. INTENT IS FOR FULL COVERAGE OF PLANTING. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO TRENCHING.
 - PLAN IS DIAGRAMMATIC AND NOT INTENDED TO SHOW EXACT LOCATIONS OF PIPING AND VALVES.
 - ALL MATERIALS SHALL BE NEW AND IN PERFECT CONDITION. NO DEVIATIONS FROM THE SPECIFICATIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF LANDSCAPE ARCHITECT OR OWNER. CONTRACTOR IS INVITED TO OFFER SUBSTITUTIONS AND/OR CHANGES FOR CONSIDERATION BY LANDSCAPE ARCHITECT OR OWNER.
 - MAINLINE SHALL BE SCH40 PVC MINIMUM DEPTH OF 24" BELOW FINISH GRADE. LATERAL LINES SHALL BE SCH 40 PVC AT A MINIMUM DEPTH OF 18" BELOW AND RECOMMENDED BY THE PIP MANUFACTURER TO MAKE PLASTIC PIPE JOINTS. ALLOW 15 MINUTES SET-UP CURING TIME BEFORE MOVING OR HANDLING, AND 24 HOURS CURING TIME BEFORE WATER IS PLACED IN PVC PIPE. APPLY WEIGHT ON LOAD PIPE WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING AND WHIPPING UNDER PRESSURE.
 - WHERE MORE THAN ONE PIPE IS INSTALLED IN A TRENCH, PLACE PIPE SIDE BY SIDE AT A MINIMUM OF 2" APART. WHERE SOL CONDITIONS ARE ROCKY, PLACE A 4" LAYER OF FINE MATERIAL ON BOTTOM OF TRENCH PRIOR TO INSTALLATION OF PIPE.
 - ALL VALVES SHALL BE BELOW GRADE IN CARSON POLY-PLASTIC VALVE BOXES, OR EQUAL, SIZE AS NEEDED FOR VALVE MANIFOLD. INSTALL VALVE BOXES IN PLANTERS WHENEVER POSSIBLE.
 - SECURELY MOUNT CONTROLLER AS DIRECTED BY MANUFACTURER. COMPLETE ALL ELECTRICAL CONNECTIONS TO CONTROLLER. ALL CONTROL WIRE SHALL BE #14 U.L. DIRECT BURIAL. TAPE AND BUNDLE EVERY 20' MAXIMUM. PLACE AT A MINIMUM DEPTH OF 18" INSTALLING IN COMMON TRENCHES WITH MAINLINE WHENEVER POSSIBLE. WHERE WIRE CROSSES PAVING, ENCASE WIRE IN A SCH40 PVC SLEEVE. FOR EXTRA STATIONS ON CONTROLLER, RUN ONE WIRE FROM EACH REMAINING STATION TO THE LAST VALVE ON THE MAINLINE. LABEL AND LEAVE IN LAST VALVE BOX FOR FUTURE ACCESS.
 - AT VALVES, BOTH WIRES SHALL BE BROUGHT INTO VALVE BOX AND SHALL HAVE AN EXCESS LOOP OF 24" BEFORE BEING SPLICED INTO THE SOLENOID PIGTAILS USING PENTITE CONNECTORS.
 - AFTER VALES HAVE BEEN INSTALLED, TEST ALL MAINLINES FOR LEAKS AT FULL FINE PRESSURE FOR A PERIOD OF TWO HOURS WITH COUPLINGS EXPOSED AND PIPE SECTIONS CENTER LOADED. BEFORE TESTING, FILL LINE WITH WATER FOR AT LEAST 24 HOURS. PROVISIONS SHALL BE MADE FOR THOROUGHLY BLEEDING THE LINE OF AIR AN DEBRIS. CORRECT ALL DEFECTS AND RETEST.
 - ALL EXCAVATIONS SHALL BE BACKFILLED WITH FINE MATERIAL TO 4" ABOVE CROWN OF PIPE AND TAMPED; THEN FILL WITH EARTH AND TAMP. ALL TRENCHES SHALL BE LEFT FLUSH WITH ADJOINING GRADE AND IN A FIRM UNYIELDING CONDITION. AND SUBSEQUENT SETTLING SHALL BE CORRECTED BY THE CONTRACTOR.
 - INSTALL ALL SYSTEMS WITHOUT SPRAY NOZZLES AND DRIP EMITTERS. FLUSH AND OPERATE EACH VALVE SYSTEM AT FULL PRESSURE UNTIL ALL DEBRIS IS REMOVED. INSTALL SPRAY NOZZLES AND DRIP EMITTERS.
 - TEST TO DETERMINE THAT ALL SPRINKLERS AND EMITTERS FUNCTION ACCORDING TO MANUFACTURER'S DATA AND GIVE FULL COVERAGE ACCORDING TO INTENT OF DRAWING. REPLACE AND ADJUST AS NECESSARY. ADDITIONAL HEADS AND EMITTERS SHALL BE PROVIDED BY THE CONTRACTOR TO COVER AREAS SHOWN TO BE DEFICIENT BY TEST.
 - CONTRACTOR SHALL SET INITIAL PROGRAM FOR THE CONTROLLER AND SHALL PROVIDE OWNER WITH THE INSTRUCTION MANUAL AND DEMONSTRATE ITS OPERATION TO THE OWNER.
 - CONTRACTOR SHALL GUARANTEE ALL PARTS AND LABOR FOR MINIMUM ONE YEAR WITH EXCEPTION OF DAMAGE CAUSED BY VANDALISM, THEFT, ADVERSE NATURAL CONDITIONS OR CIRCUMSTANCES BEYOND THE CONTROL OF THE CONTRACTOR.
 - WINTERIZE SYSTEM BY INSTALLING KING DRAIN AUTOMATIC DRAIN VALVES AT ALL LOW POINTS. INSTALL MANUAL DRAIN VALVE DOWN STREAM OF VALVE MANIFOLD. BACKFLOW PREVENTER SHALL BE INSTALLED WITH UNION JOINTS AND REMOVED IN THE FALL FOR STORAGE IN A WARM, DRY LOCATION.
 - ADD FILTER AT POC TO FILTER ALL WATER PASSED ON TO IRRIGATION SYSTEM.
 - P.O.C. MAIN SHUTOFF VALVE AND BACKFLOW DEVICE SHALL BE INSTALLED WITHIN THE 50' BUILDING SETBACK OR BUILDING ENVELOPE PER CLEAR CREEKS REQUIREMENTS.

IRRIGATION LEGEND

SYMBOL	QTY.	DESCRIPTION	SIZE
	2	POC - POINT OF CONNECTION - SUPPLY LINE FROM MUNICIPAL SUPPLY	(AS REQ-D)
	0	BACKFLOW PREVENTION DEVICE - REDUCED PRESSURE ASSEMBLY-WILKINS 975 XL	1 1/2"
	0	AUTOMATIC CONTROLLER WITH WEATHER SENSORS - HUNTER PRO-C	4-16 STATIONS
	2	MAIN VALVE SHUTOFF	
	4	IRRIGATION DRIP VALVE - HUNTER ICZ-101 W/ FILTER SYSTEM	3/4"
	8	HUNTER MP ROTATOR 800 SPRAY HEAD AND SPRAY RADIUS (10'R)	
	3	HUNTER MP ROTATOR 1000 SPRAY HEAD AND SPRAY RADIUS (14'R)	
	30	HUNTER MP ROTATOR 2000 SPRAY HEAD AND SPRAY RADIUS (20'R)	
	32	HUNTER MP ROTATOR 3000 SPRAY HEAD AND SPRAY RADIUS (30'R)	
	2	HUNTER MP STRIP ROTATOR (5X15' & 5X30')	
	55 LF	SCHEDULE 40 PVC MAINLINE AT 24" BELOW GRADE	1 1/2"
	110 LF	SCHEDULE 40 PVC SLEEVE, 6" UNLESS OTHERWISE NOTED ON PLAN - 24" BELOW SURFACE FOR MAINLINE, 18" FOR LATERALS	
	1,550 LF	SCHEDULE 40 LATERAL LINE	
	D#	D# = DRIP ZONE	
	S#	S# = SPRAY ZONE	
	X"	X" = VALVE SIZE. GPM= ESTIMATED GALLONS PER MINUTE	

- ### NOTES:
- LANDSCAPE IS TO BE IRRIGATED WITH DRIP AND SPRAY IRRIGATION. IRRIGATION TO BE INSTALLED PER MANUFACTURE INSTALLATION INSTRUCTIONS. IRRIGATION TO BE CONTROLLED WITH SMART CONTROLLER. INSTALL PIPING AND VALVES IN PLANTING AREAS WHERE POSSIBLE. AND LOCATE ELECTRIC CONTROL AND QUICK COUPLING VALVES IN GROUND COVER/SHRUB AREAS, 6'-12" AWAY FROM EDGE OF SIDEWALK FOR EASY ACCESS.
 - DRIP AND SPRAY IRRIGATION IS TO BE INSTALLED AT ACCEPTABLE DESIGNED PSI WITH MAXIMUM FLOW RATES. INSTALL PRESSURE REGULATOR AND COMPENSATE FOR THE BETTER OF THE OVERALL SYSTEM. GPM RATES SHOWN PER VALVE ARE APPROXIMATE. LANDSCAPE CONTRACTOR SHALL TEST AND VERIFY PRESSURE AND FLOW PRIOR TO STARTING JOB AND NOTIFY LANDSCAPE ARCHITECT IF WATER PRESSURE AND FLOWS DO NOT MEET MINIMUM REQUIREMENTS.
 - INSTALL KING DRAIN AUTOMATIC DRAIN VALVES AT VALVE MANIFOLDS AND AT ALL LOW POINTS IN HARD PIPE PORTIONS OF SYSTEM.
 - TO WINTERIZE SYSTEM INSTALL CHAMPION MANUAL DRAIN VALVE OR EQUAL WITH CROSS HANDLE AT VALVE MANIFOLDS, BACKFLOW PREVENTER AND LOWEST POINT IN THE SYSTEM - SIZE AS REQUIRED.
 - PIPE SIZES SHOWN ARE APPROXIMATE - CONTRACTOR TO ADJUST PIPE SIZING FOR OPTIMUM FLOW AND PRESSURE.

CONSULTANT:

PREPARED FOR:

IRRIGATION PLAN

SEAL:

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REVISION DATE

DRAWN BY: SH CHECKED BY: JPP

NORTH 15' 5" 0" 20'

DATE: 8-27-21

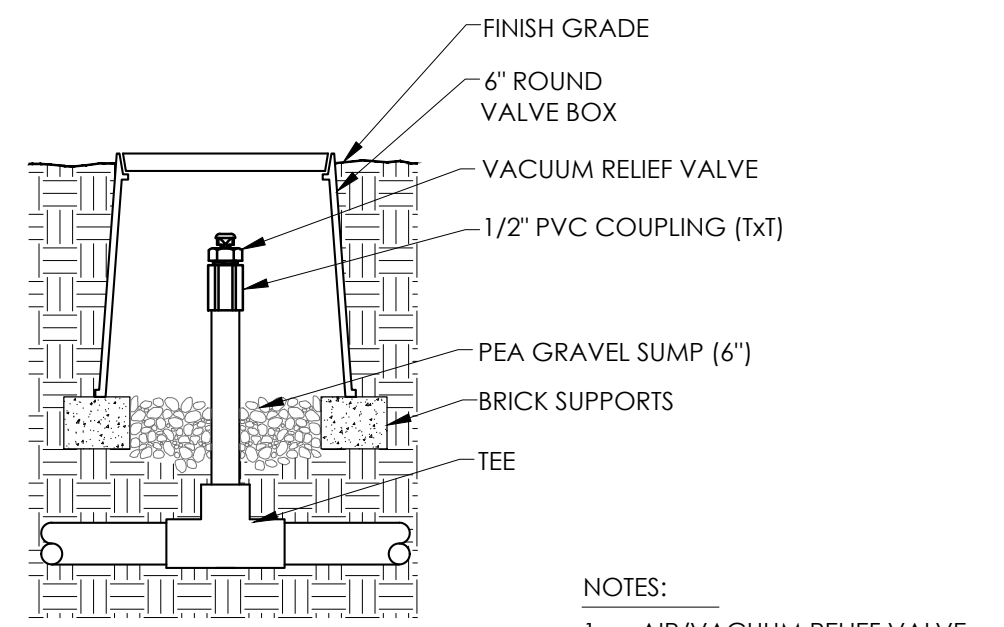
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TSA
13720 BUTTERFIELD DR
TRUCKEE, CA. 96161

SHEET TITLE:
IRRIGATION PLAN

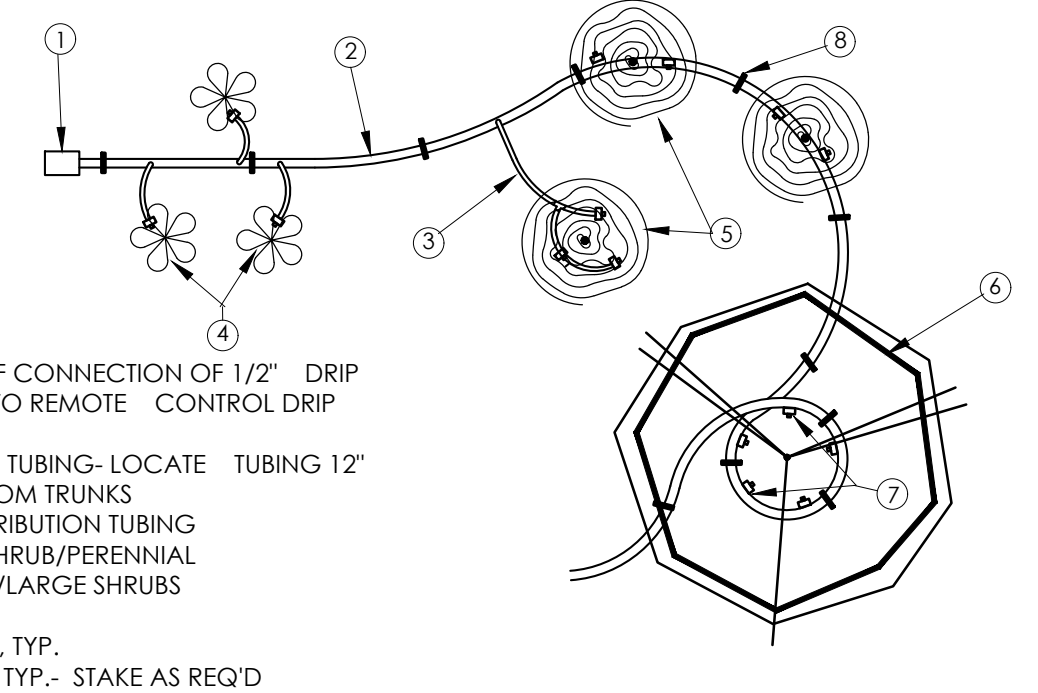
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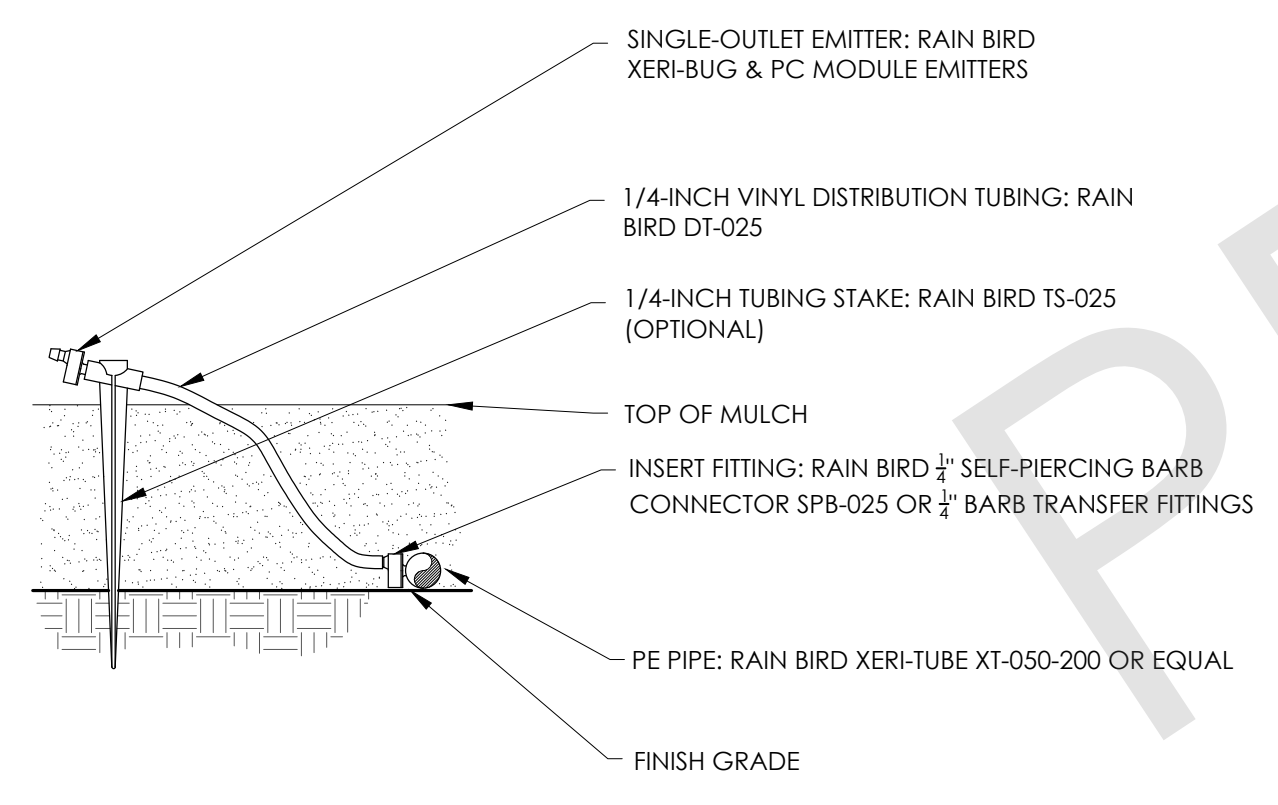
- NOTES:
- AIR/VACUUM RELIEF VALVE CANNOT BE CONNECTED LOWER THAN DRIPLINE LATERALS.
 - USE FOR ZONES OF 7 GPM OR LESS ONLY (PLUMBED TO PVC).

13 AIR/VACUUM RELIEF VALVE DETAIL NOT TO SCALE

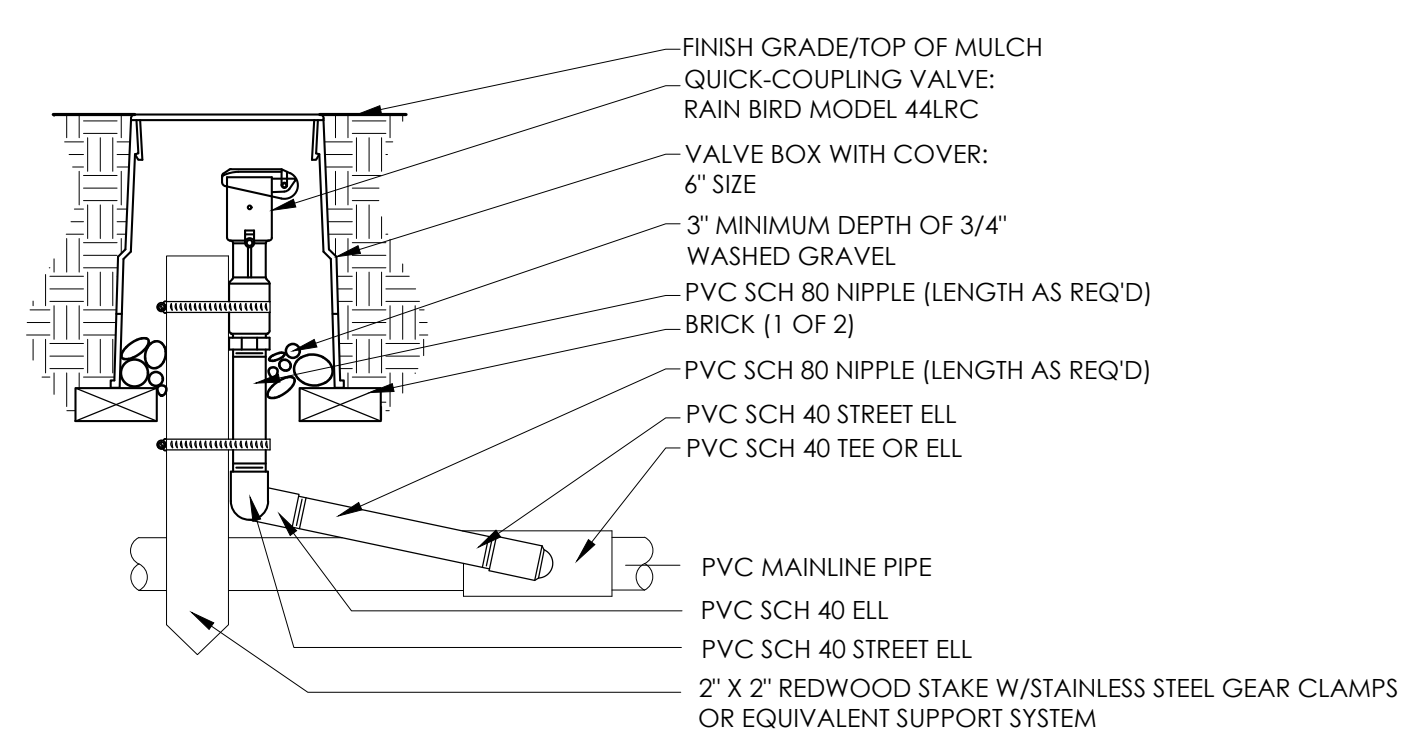


- NOTE: PROVIDE THE FOLLOWING EMITTERS FOR EACH TYPE OF PLANT: SMALL SHRUBS (1 GAL.) 1 - 2 GPH EMITTER MED./L.G. SHRUBS (5-15 GAL.) 2 to 3 - 2 GPH EMITTERS TREES 5 - 2 GPH EMITTERS
- POINT OF CONNECTION OF 1/2" DRIP TUBING TO REMOTE CONTROL DRIP VALVE
 - 1/2" DRIP TUBING- LOCATE TUBING 12" MAX. FROM TRUNKS
 - 1/4" DISTRIBUTION TUBING
 - SMALL SHRUB/PERENNIAL
 - MEDIUM/LARGE SHRUBS
 - TREE
 - EMITTERS, TYP.
 - STAPLES, TYP.- STAKE AS REQ'D

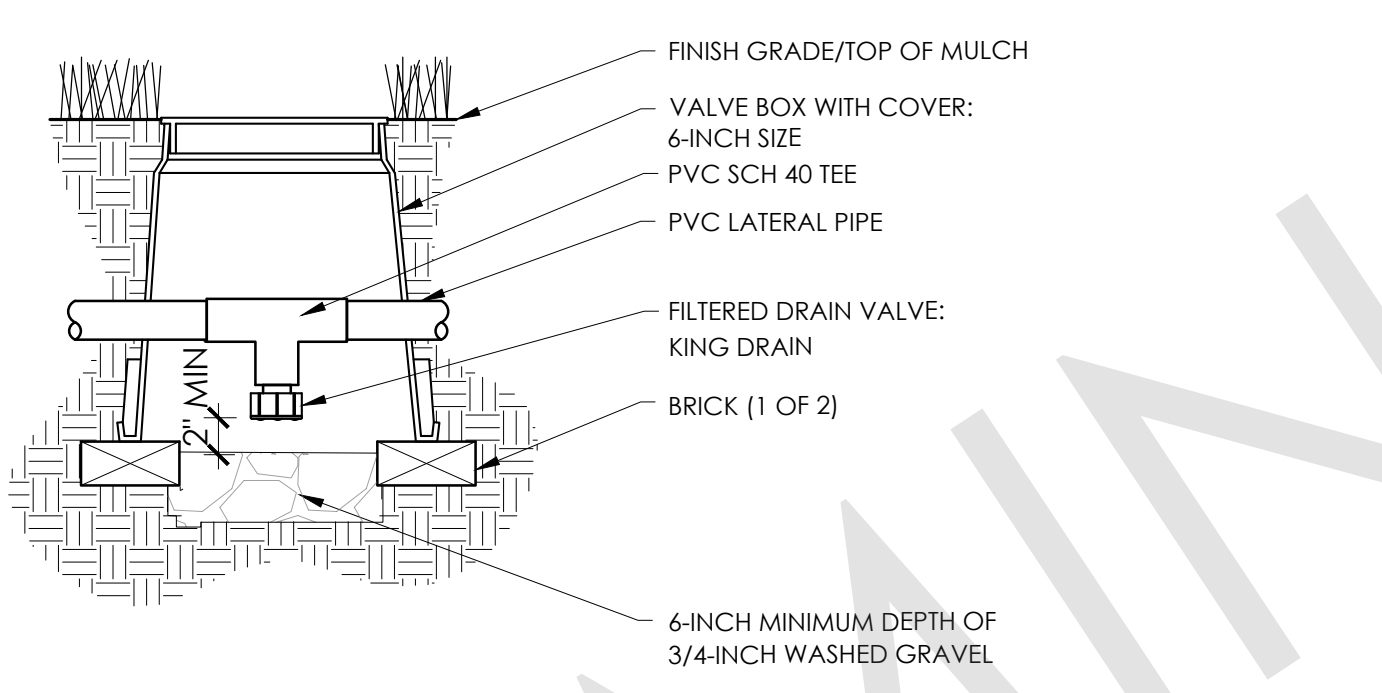
14 TYPICAL DRIP LAYOUT DETAIL NOT TO SCALE



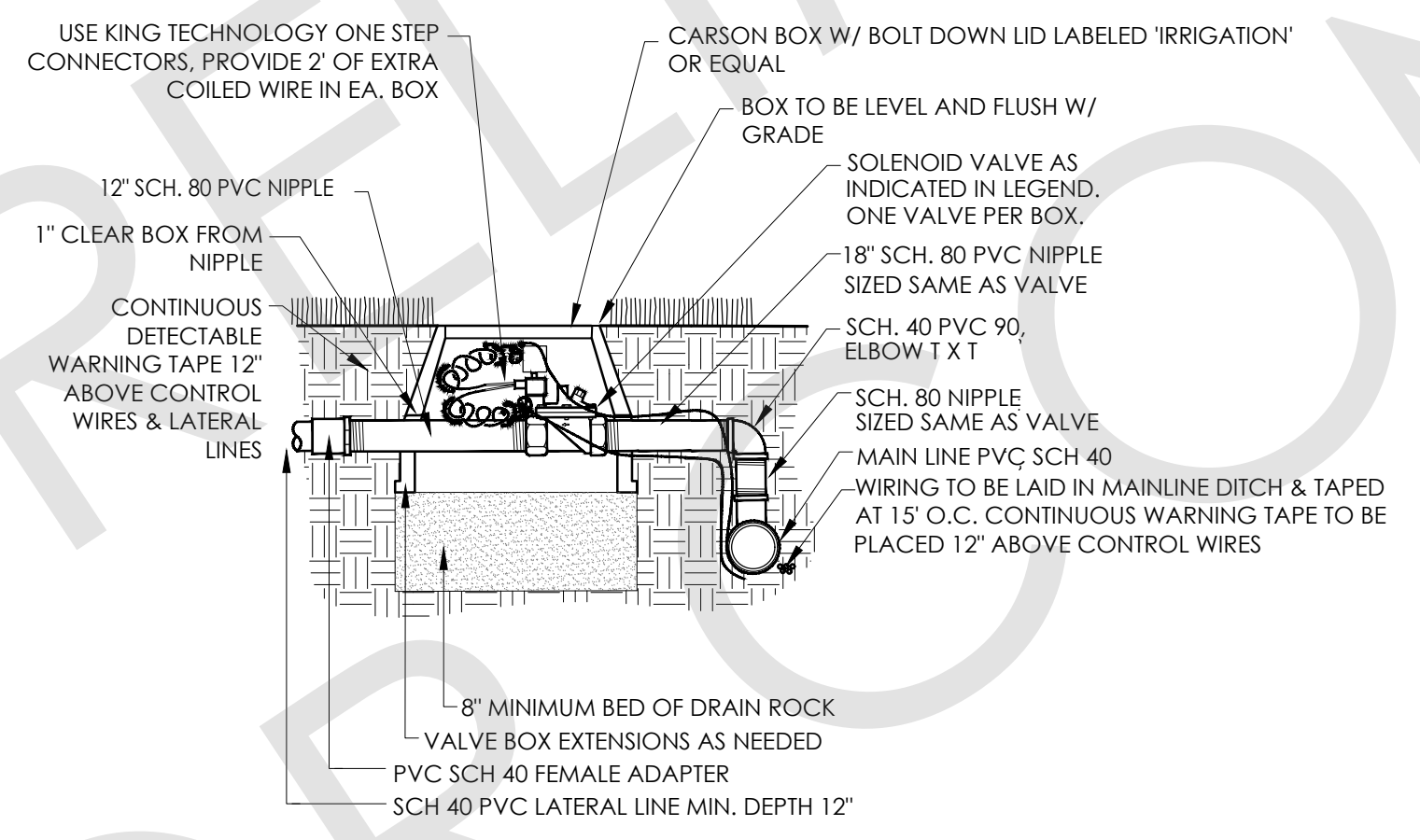
15 EMITTER INTO 1/4" TUBING DETAIL NOT TO SCALE



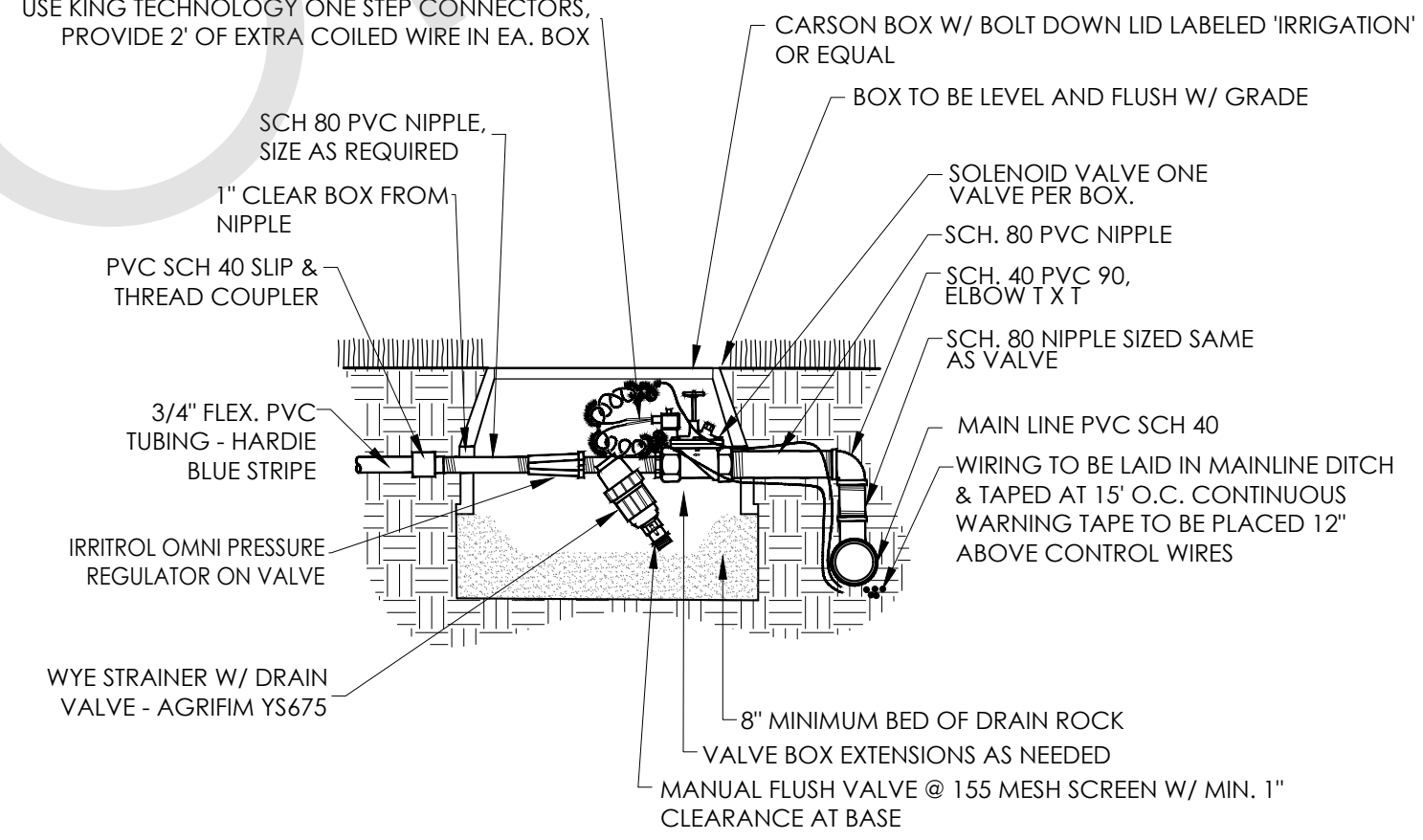
9 QUICK-COUPLING VALVE DETAIL NOT TO SCALE



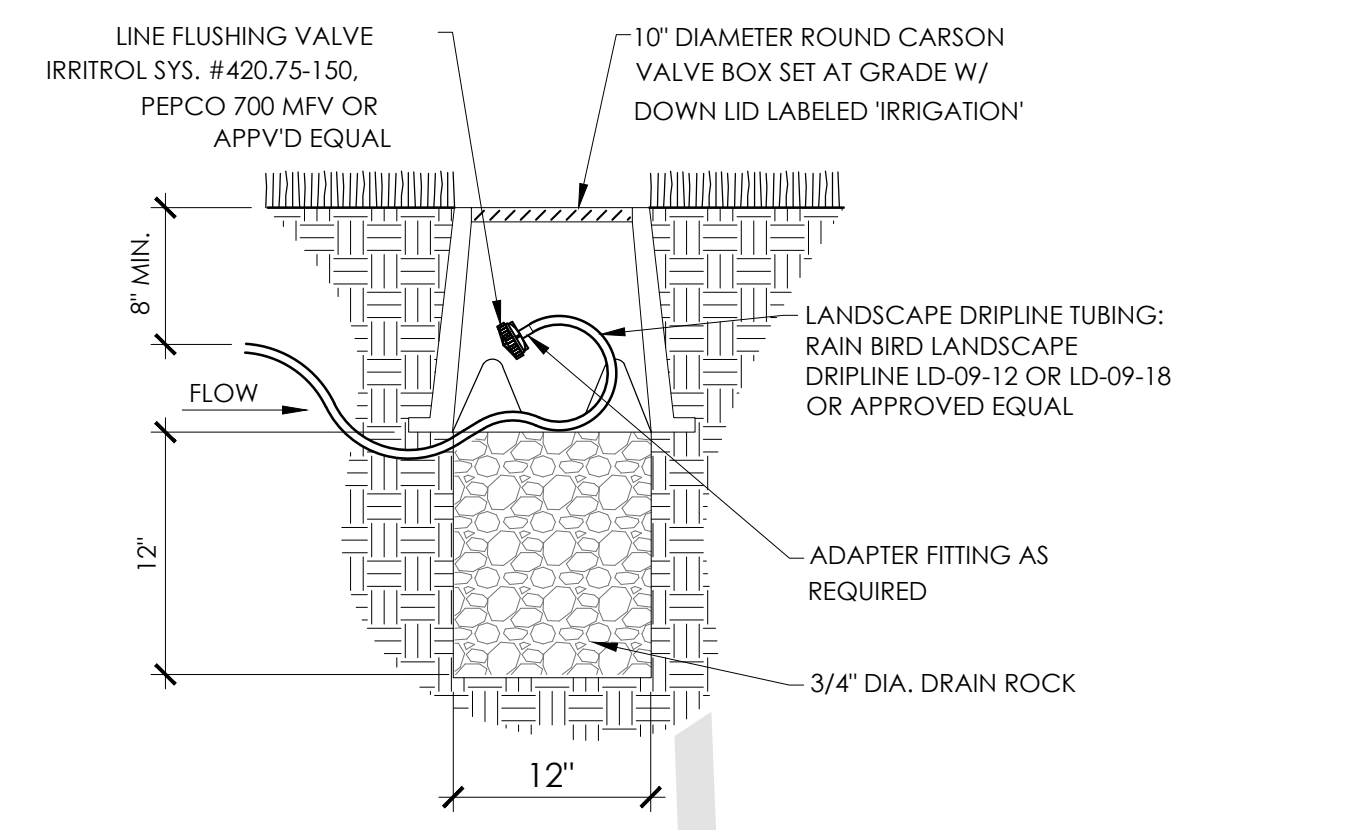
10 AUTOMATIC DRAIN VALVE DETAIL NOT TO SCALE



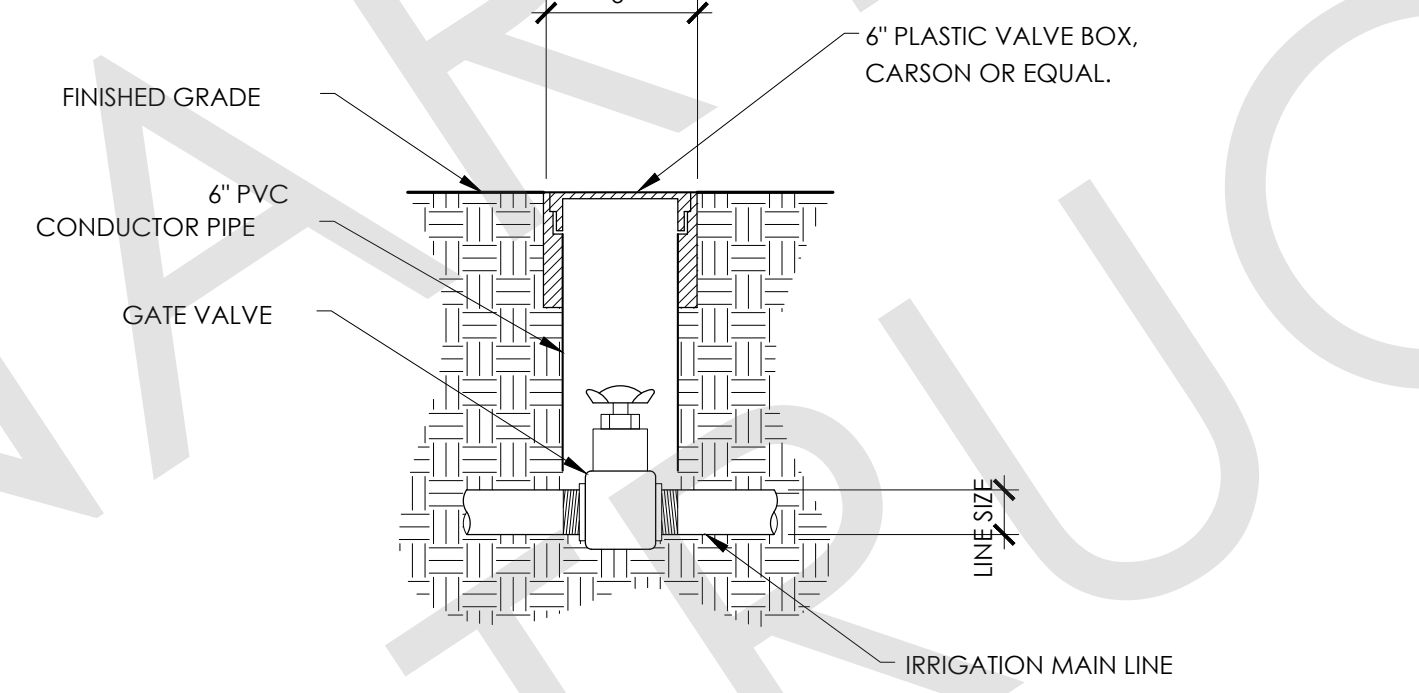
11 ELECTRONIC CONTROL VALVE DETAIL NOT TO SCALE



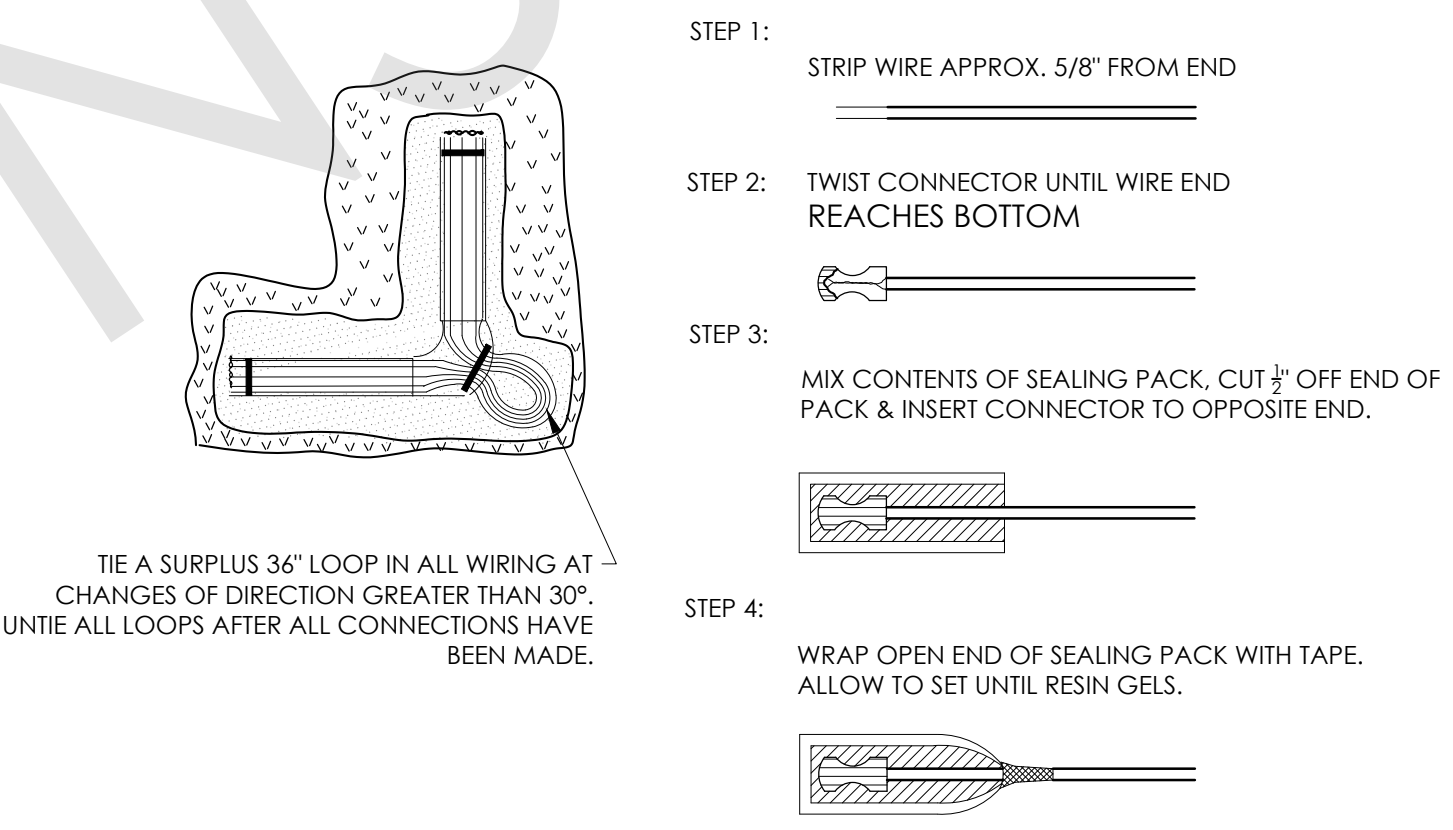
12 DRIP VALVE DETAIL NOT TO SCALE



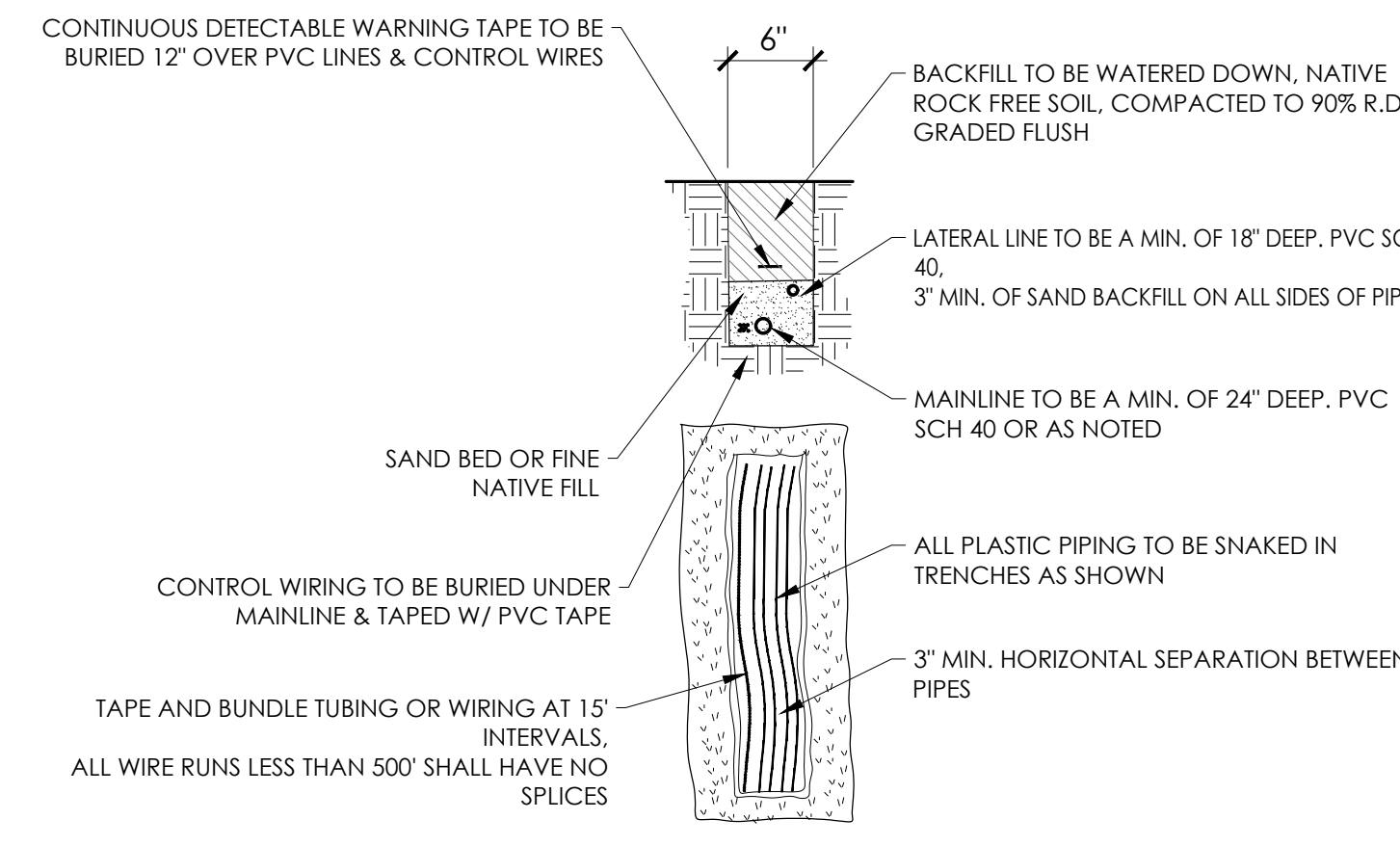
5 FLUSHING END PLUG DETAIL NOT TO SCALE



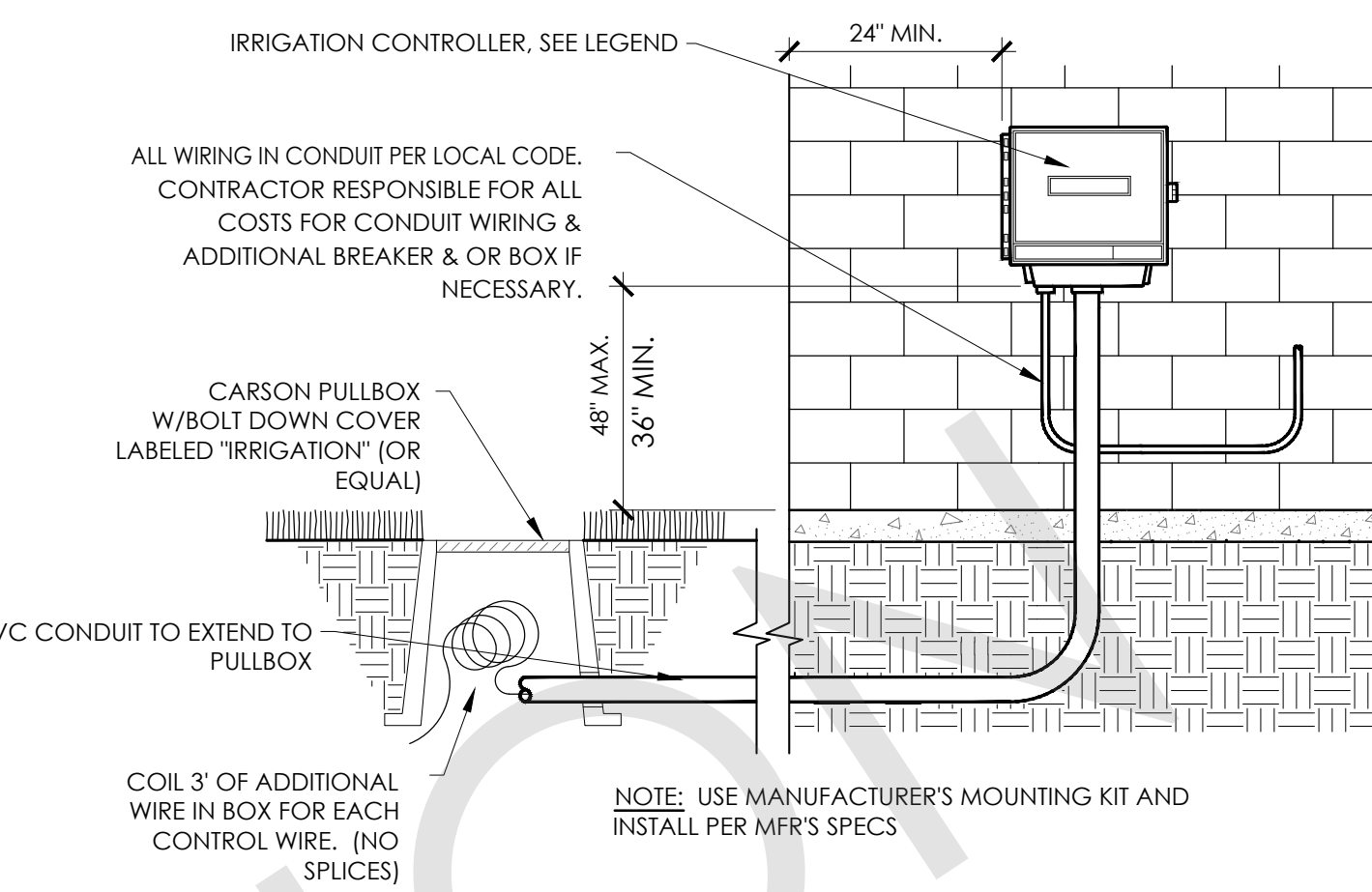
6 THREADED GATE VALVE DETAIL NOT TO SCALE



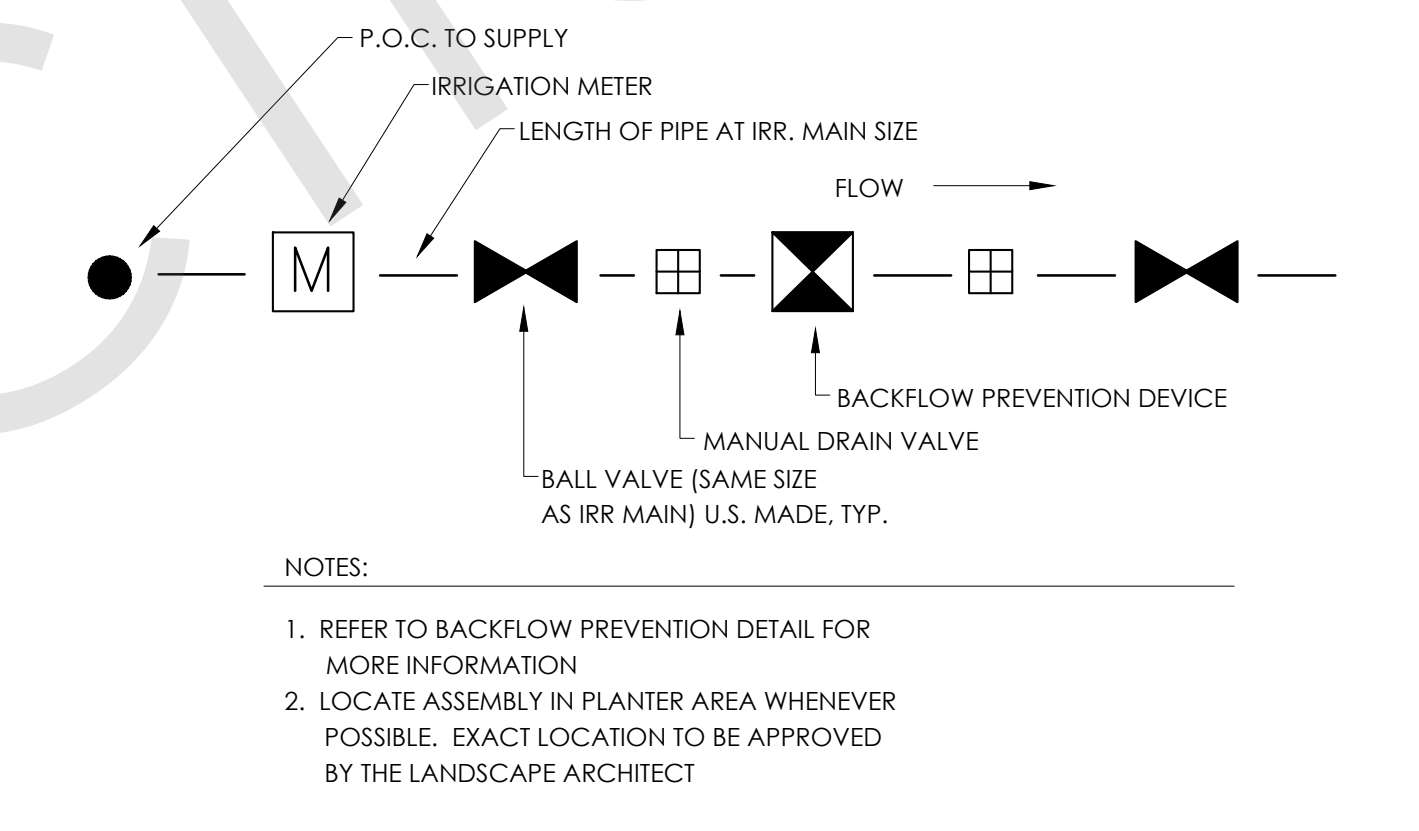
7 CONTROLLER WIRING & SPLICING DETAIL NOT TO SCALE



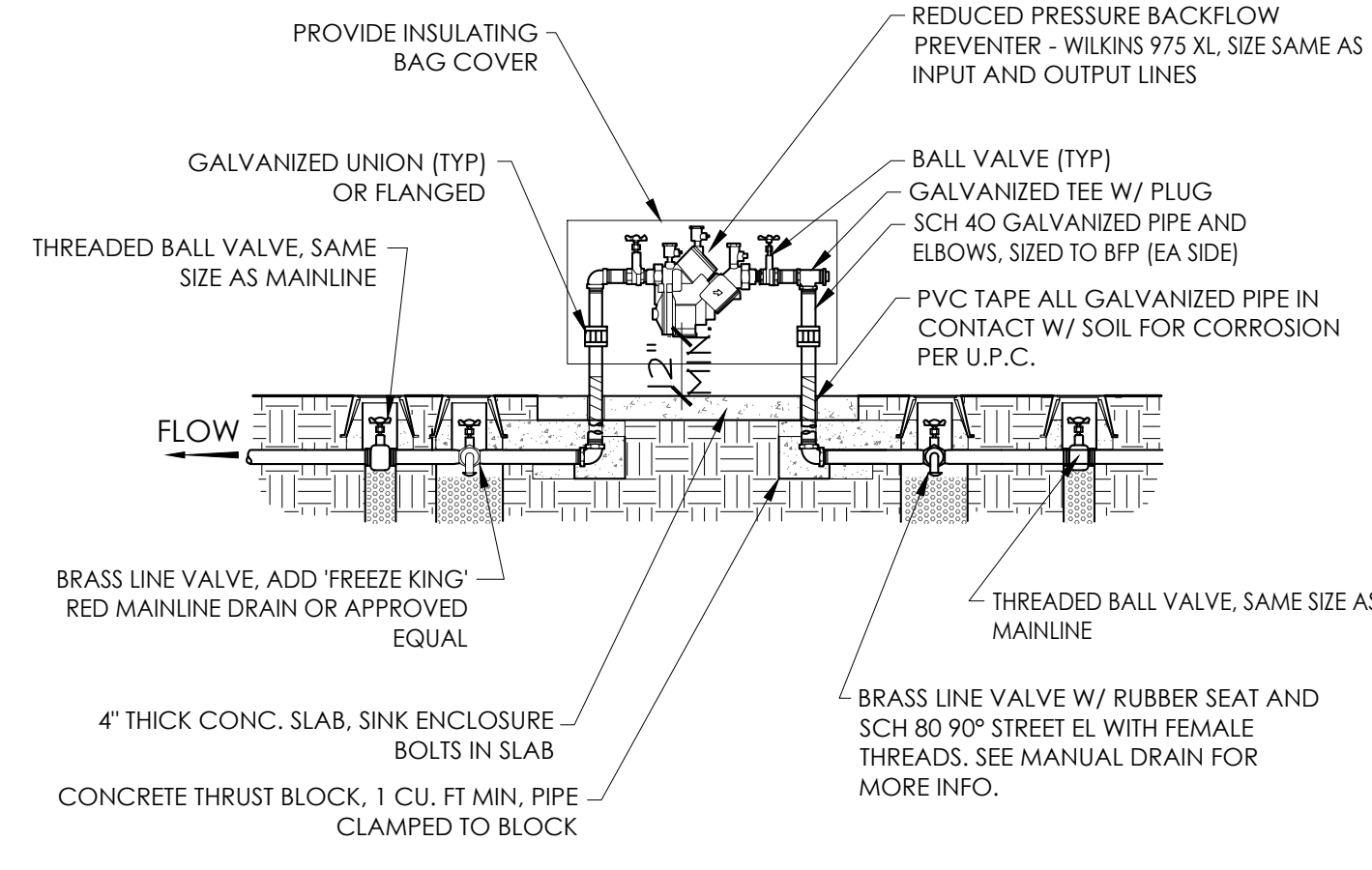
8 TRENCH / MAINLINE DETAIL NOT TO SCALE



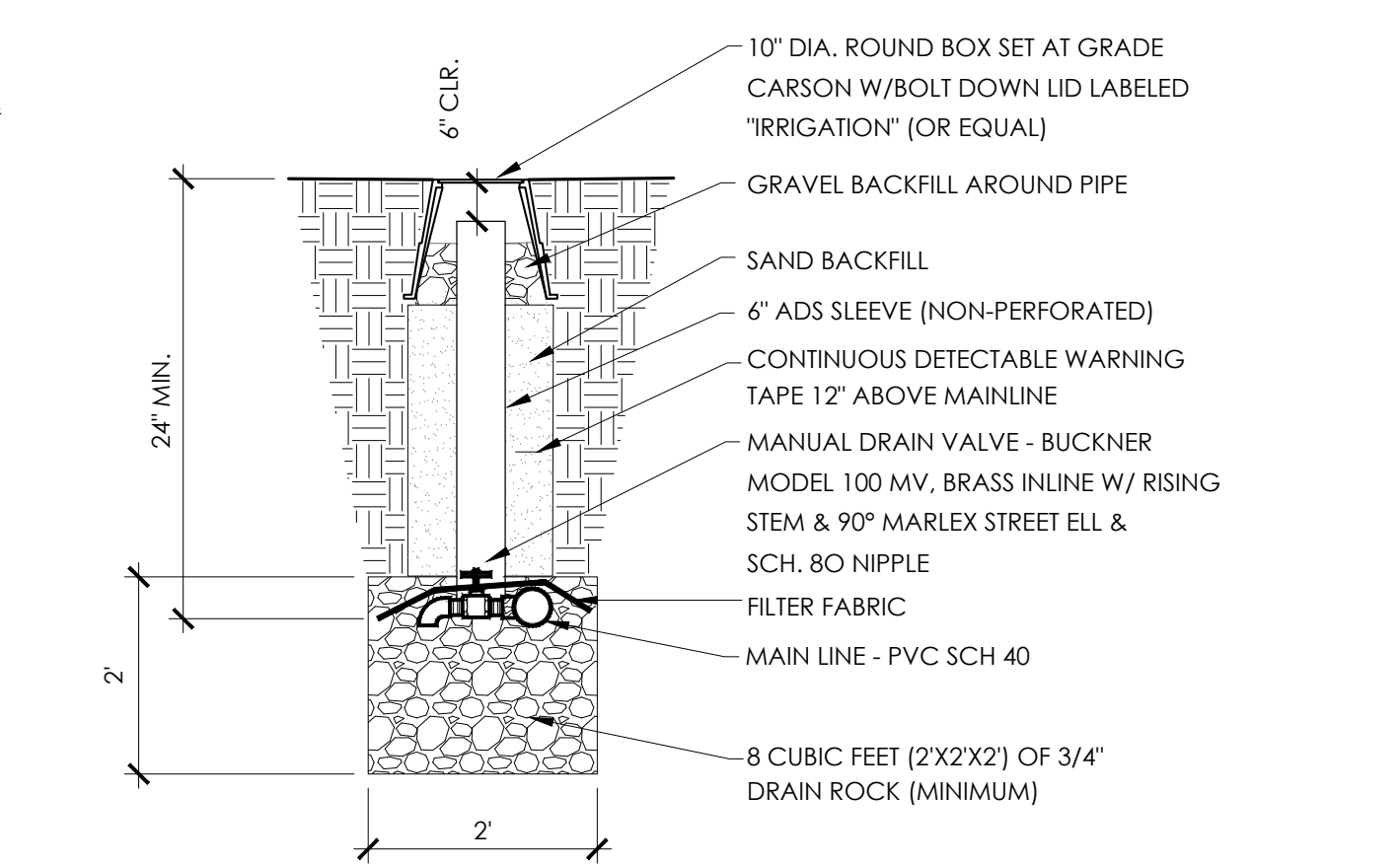
1 WALL MOUNTED CONTROLLER DETAIL NOT TO SCALE



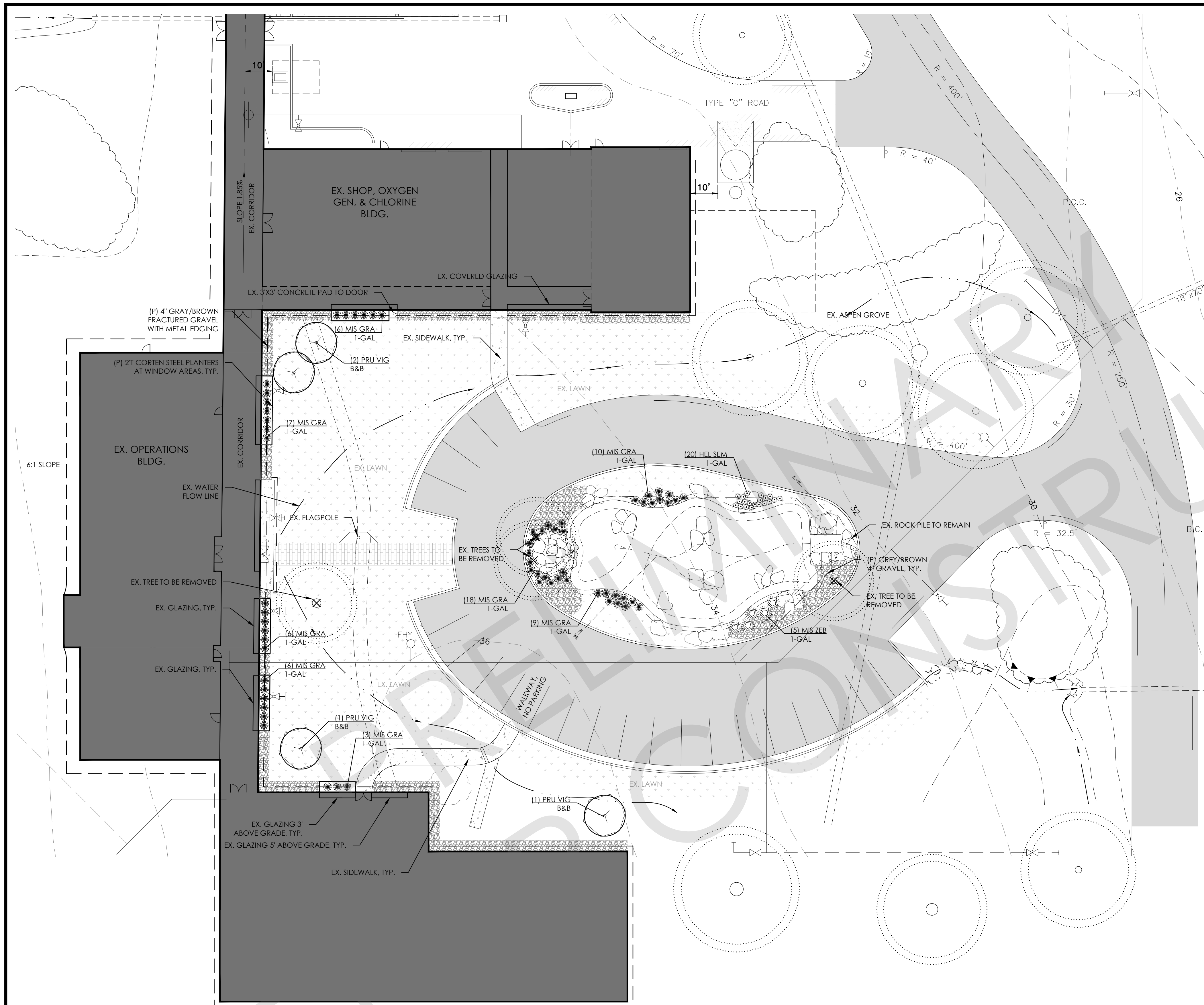
2 POINT OF CONNECTION DETAIL NOT TO SCALE



3 R.P. BACKFLOW PREVENTER DETAIL NOT TO SCALE



4 MANUAL DRAIN VALVE DETAIL NOT TO SCALE

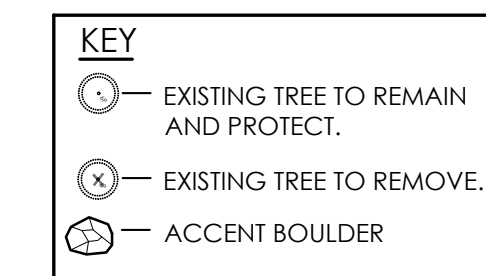


PRELIMINARY PLANTING LEGEND				
	SCIENTIFIC NAME	COMMON NAME	QTY.	PLANTED SIZE
TREES				
(4)	PRU VIR	PRUNUS VIRGINIANA	5	B&B, 5'W X 8'T
SHRUBS				
(4)	HEL SEM	HELIOTRICHON SEMPERVIRENS	20	10-GAL
(4)	MIS ZER	MISCANTHUS SINENSIS 'ZEBRINUS'	5	10-GAL
(4)	MIS GRA	MISCANTHUS SINENSIS 'GRACILLIMUS'	65	10-GAL
PERENNIALS / GROUNDCOVERS				
(4)		LAWN	15,700 SF	

*ALL DISTURBED AREAS WILL BE REVEGETATED WITH APPROVED SEED MIXTURE AND ALL AREAS OF EXPOSED SOIL WILL BE STABILIZED WITH PINE STRAW OR MULCH

PLANTING NOTES

- SOIL TESTING**
SOIL SAMPLE REQUIRED BEFORE PLANT INSTALLATION IN ORDER TO DETERMINE NECESSARY SOIL AMENDMENTS. FOR SOIL TESTING SERVICES, SUNLAND ANALYTICAL, INC. (916-852-8557) IS RECOMMENDED.
- PLANTING**
- PLANTS SHALL BE THE VARIETY AND SIZE SPECIFIED ON THE PLAN AND BE HEALTHY, SHAPELY AND WELL ROOTED AND CONFORM TO AMERICAN NURSERYMAN'S STANDARDS. TREES SHALL BE ABLE TO STAND STRAIGHT ON THEIR OWN WITHOUT SUPPORT. ANY CHANGES TO PLAN TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. LANDSCAPE ARCHITECT AND /OR OWNER RESERVES THE RIGHT OF REFUSAL SHOULD PLANT MATERIAL SIZE AND QUALITY BE DEEMED UNSATISFACTORY. INSPECTION BY LANDSCAPE ARCHITECT IS MANDATORY PRIOR TO ACCEPTANCE OF ALL PLANT MATERIALS. MATERIAL SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. MATERIALS SHALL BE COMPLETELY FREE OF TRUNK, BRANCH AND BARK WOUNDS. STRUCTURE OF PLANT MATERIAL SHALL BE APPROPRIATE TO NATURAL HABIT.
 - INSTALLING CONTRACTOR SHALL VERIFY PLANT QUANTITIES AND AREAS TO BE LANDSCAPED AND NOTIFY OWNER AND/OR LANDSCAPE ARCHITECT OF DISCREPANCIES.
 - GRADING OF ENTIRE CONTRACT AREA SHALL BE SMOOTH AND EVEN AND SLOPE TO DRAIN. FINISH GRADES SHALL BE 1/2" BELOW ALL PAVED SURFACES. SLOPES, MOUNDS, AND SWALES SHALL HAVE NO ABRUPT CHANGE IN GRADIENT TO ASSURE A NATURAL AND PLEASING APPEARANCE.
 - THE PLANTING HOLE SHALL BE DUG TWICE THE WIDTH AND TO THE SAME DEPTH OF THE CONTAINER OR ROOTBALL.
 - THE PLANTING HOLE SHALL BE TESTED FOR DRAINAGE. FILL WITH WATER AND ALLOW TO DRAIN. SHOULD DRAINAGE NOT OCCUR WITHIN A FEW HOURS THE HOLE SHOULD NOT BE USED AND AN ALTERNATIVE LOCATION FOR PLANT FOUND.
 - ROOTBALL SHALL BE GENTLY REMOVED FROM CONTAINER AND ROOT INSPECTED PRIOR TO PLACEMENT IN THE HOLE. THE ROOT BALL SHALL BE TEASED BY PINCHING ROOTLETS LOOSE FROM WALL OF BALL TO ENCOURAGE ROOTS TO EXTEND OUTWARD. SHOULD PLANT BE ROOT BOUND THE BALL SHALL BE SCORED WITH A SHARP KNIFE VERTICALLY IN THIRDS DOWN THE ROOTBALL SIDES APPROXIMATELY 1/2 INCH DEEP AND TWO WAYS ACROSS THE BOTTOM. THE ROOTS SHALL THEN BE LOOSENEED AND SPREAD TO ENCOURAGE OUTWARD GROWTH.
 - PLANT SHALL BE BURIED TO STRUCTURAL ROOT DEPTH. EXCESS MATERIAL ON BALLED AND BURLAP TREES SHALL BE REMOVED. REMOVE BURLAP AND BASKETS FROM B&B TREES WITH CARE TO MAINTAIN INTEGRITY OF ROOT BALL.
 - ALL TAGS SHALL BE REMOVED FROM PLANTS.
 - A COMPOST OR HUMUS SHALL BE INCORPORATED AT A RATE OF SIX CUBIC YARDS PER 1000 SQUARE FEET FOR IMPROVED MOISTURE AND NUTRIENT RETENTION. COMPOST IS GENERALLY AVAILABLE AT MOST NURSERIES - KELLOGG'S 'GROW MULCH' IS RECOMMENDED. HUMUS, AVAILABLE LOCALLY IN BULK QUANTITIES, MUST BE WELL COMPOSTED TO AVOID ROOT BURN. WHEN COMPOSTED HUMUS NOT AVAILABLE, AMENDMENT SHALL BE SUFFICIENTLY NITROGENIZED TO PREVENT LOCK UP OF NUTRIENTS AND ROOT BURN. CONTRACTOR TO PROVIDE SAMPLE SUBMITTAL TO LANDSCAPE ARCHITECT.
 - TOP SOIL SHALL BE FERTILE, FRIABLE AND FREE OF ROCKS LARGER THAN 1" DIAMETER, NOXIOUS WEED SEEDS OR EXTRANEOUS MATTER. TOP SOIL DELIVERED TO SITE SHALL HAVE ACIDITY RANGE OF PH 5.0 TO 7.0 AND SHALL CONTAIN NOT LESS THAN 1% ORGANIC MATTER.
 - BACKFILL MATERIAL SHALL MEET THE LEVEL OF TOP OF ROOTBALL. NEVER ALLOW NEW SOIL TO REACH PLANT STEM. BACKFILL SHALL BE PRESSED FIRMLY IN AROUND ROOTBALL.
 - WHEN BACKFILLING IS COMPLETE, CONSTRUCT A WATER RETENTION BERM APPROXIMATELY THREE INCHES HIGH AND TWICE THE DIAMETER OF THE ROOT BALL. SEE DETAIL.
 - FILL BASIN INSIDE BERM WITH WATER AND ALLOW TO DRAIN. FILL ANY HOLES THAT APPEAR WITH ADDITIONAL BACKFILL MATERIAL. REPEAT UNTIL HOLES DO NOT APPEAR AND ALL SOIL AROUND ROOT BALL IS MOISTENED.
 - TOP DRESS WITH 2"-3" LOCALLY OBTAINED 1" MINUS GROUND FIR BARK IN ALL PLANTED AREAS. IN WINDIER AREAS MULCH WITH SHREDDED CEDAR BARK OR EQUAL. CONTRACTOR TO PROVIDE A SAMPLE SUBMITTAL TO LANDSCAPE ARCHITECT FOR APPROVAL.
 - ONE REDWOOD STAKE OF 1-1/2" BY 1-1/2" SHALL BE INSTALLED FOR WINTER SUPPORT OF MULTI-STEMMED SHRUBS UNTIL ADEQUATE BRANCH STRENGTH IS ATTAINED. SEE DETAIL.
 - ONE LODGEPOLE STAKE OF TWO INCHES DIAMETER AND 8-10 FEET IN LENGTH SHALL BE INSTALLED AT THE WINDWARD SIDE OF ALL DECIDUOUS TREES. DOUBLE STAKING WILL BE REQUIRED IN WINDIER AND HEAVY SNOW LOAD AREAS. STAKE(S) SHALL BE INSERTED INTO GROUND AT EDGE OF ROOT BALL. NEVER INTO ROOTBALL. TREE GUYING METHOD IS RECOMMENDED FOR LARGER CONIFEROUS TREES IN WINDIER LOCATIONS. SEE DETAILS.
 - TWO TO THREE TREE TIES OF DURABLE CONSTRUCTION SHALL BE USED PER TREE. THE RUBBER OR MORE PLIABLE PORTION OF THE TIE SHALL BE LOOPED AROUND THE TRUNK AND WIRE OR OTHER MATERIAL LOOPED AROUND THE STAKE IN A FIGURE EIGHT CONFIGURATION. THE WIRES ARE THEN TWISTED TOGETHER. SHOULD SECURING THE TIE IN PLACE BE REQUIRED, NAIL OR STAPLE THE TIE TO THE STAKE ONLY. NEVER TO THE TREE. DO NOT TIE THE TRUNK TOO TIGHTLY AGAINST THE STAKE. ALLOW SOME ROOM TO MOVE IN BREEZE SO AS TO DEVELOP CALIPER STRENGTH IN TRUNK. THE TRUNK SHALL BE UPRIGHT AND STRAIGHT. SEE DETAIL.
 - IN THE FALL, AFTER LEAVES HAVE DROPPED, BRANCHES OF YOUNG TREES AND SHRUBS AND THOSE CLOSE TO SNOW REMOVAL/STORAGE AREAS SHALL BE BOUND IN AN UPWARD FASHION WITH VINYL TREE TAPE OR EQUAL TO MINIMIZE BREAKAGE FROM WEIGHT AND MOVEMENT OF SNOW, SEE DETAIL. THIS PROCEDURE SHOULD BE REPEATED EACH YEAR UNTIL TREES AND SHRUBS HAVE ATTAINED SUBSTANTIAL STRENGTH AND GIRTH. UNWRAP TREES AND SHRUBS IN SPRING, BEFORE NEW LEAVES APPEAR.
 - ALL CHANGES TO PLANS TO BE APPROVED BY LANDSCAPE ARCHITECT.
 - UPON COMPLETION OF ALL PROJECT PHASES, INSTALLING CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR INSPECTION AND FINAL APPROVAL.
 - REGULAR MAINTENANCE - PRUNING FERTILIZING, WEED, DEBRIS AND TRASH REMOVAL, REMOVE AND REPLACE ANY DEAD OR DYING PLANT MATERIAL, REPAIRATION OF IRRIGATION SYSTEM AS NEEDED. REPORT - PRIOR TO THE TWO YEAR ANNIVERSARY OF COMPLETION OF PROJECT A REPORT SHALL BE PREPARED BY THE PROJECT LANDSCAPE CONTRACTOR OR LANDSCAPE ARCHITECT WHICH DOCUMENTS THE CONDITION OF THE LANDSCAPING, AND PROVIDES RECOMMENDATIONS AS TO WHETHER ANY LANDSCAPING SHOULD BE REPAIRED OR INSTALLED. THE RECOMMENDATIONS OF THE REPORT SHALL BECOME A PART OF AND INCORPORATED INTO THE FINAL LANDSCAPE PLAN, AND THE LANDSCAPING SHALL BE REPAIRED, REPLACED AND INSTALLED WITHIN SIX MONTHS OF THE DATE OF APPROVAL OF THE REPORT.
- SEEDING/SODDING**
- SEEDING AREAS SHALL BE PREPARED BY TILLING SOIL TO A SIX INCH DEPTH REMOVING ROCK GREATER THAN FOUR INCHES IN DIAMETER FOR WILDFLOWER AND EROSION CONTROL AREAS AND TURF GRASS AREAS. SIX INCHES OF HUMUS OR COMPOST SHALL BE TILLED IN. FOR SEEDED AREAS EVENLY SPREAD TOPSOIL/MANUFACTURED SOIL ON TOP OF NATIVE SOIL.
 - SEEDING/SOD AREA SHALL BE RAKED OR ROLLED TO A SMOOTH SURFACE FILLING HOLES AND REMOVING ROCK AS NECESSARY. FOR TURF AREAS THIS PROCESS SHALL BE REPEATED AS NEEDED TO ATTAIN SMOOTHEST SURFACE POSSIBLE, ROLL IN TWO OVERLAPPING DIRECTIONS FOR BEST RESULTS.
 - SEED SHALL THEN BE BROADCAST AT THE RATE PRESCRIBED BY SEED COMPANY OR LANDSCAPE ARCHITECT. LAWN SEEDS SHALL BE ROLLED IN AFTER BROADCASTING.
 - APPLY BIOSOL MIX GRANULAR FERTILIZER AT RATE RECOMMENDED.
 - SEED SHALL THEN BE COVERED WITH A 1/8 TO 1/4" LAYER OF PEAT MOSS, HUMUS OR EQUAL TO RETAIN MOISTURE AND PREVENT WIND AND BIRDS FROM CARRYING SEED AWAY.
 - ADEQUATE MOISTURE SHALL BE MAINTAINED IN SEEDING AREA UNTIL SEEDLINGS REACH A HEIGHT OF TWO INCHES WHEN REGULAR WATERING MAY BEGIN. FREQUENCY AND DURATION OF INITIAL WATERING WILL VARY ACCORDING TO DAILY TEMPERATURES, SUN/SHADE PERIODS, WIND, SOIL SLOPE AND ASPECT. CONTRACTOR TO ENSURE THAT APPROPRIATE SCHEDULE IS EMPLOYED FOR THIS AREA.



10069 WEST RIVER ST.
SUITE #4C
TRUCKEE, CA. 96161
28 VINE ST.
RENO, NV 89503
530.553.4000
CA. LIC. #5685, 5717
NV. LIC. 630

CONSULTANT:

PREPARED FOR:

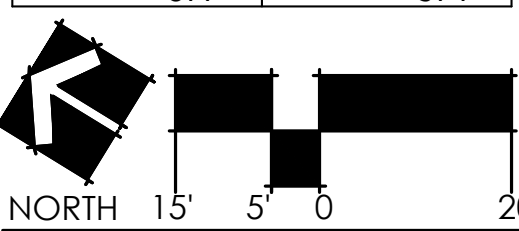
PLANTING PLAN

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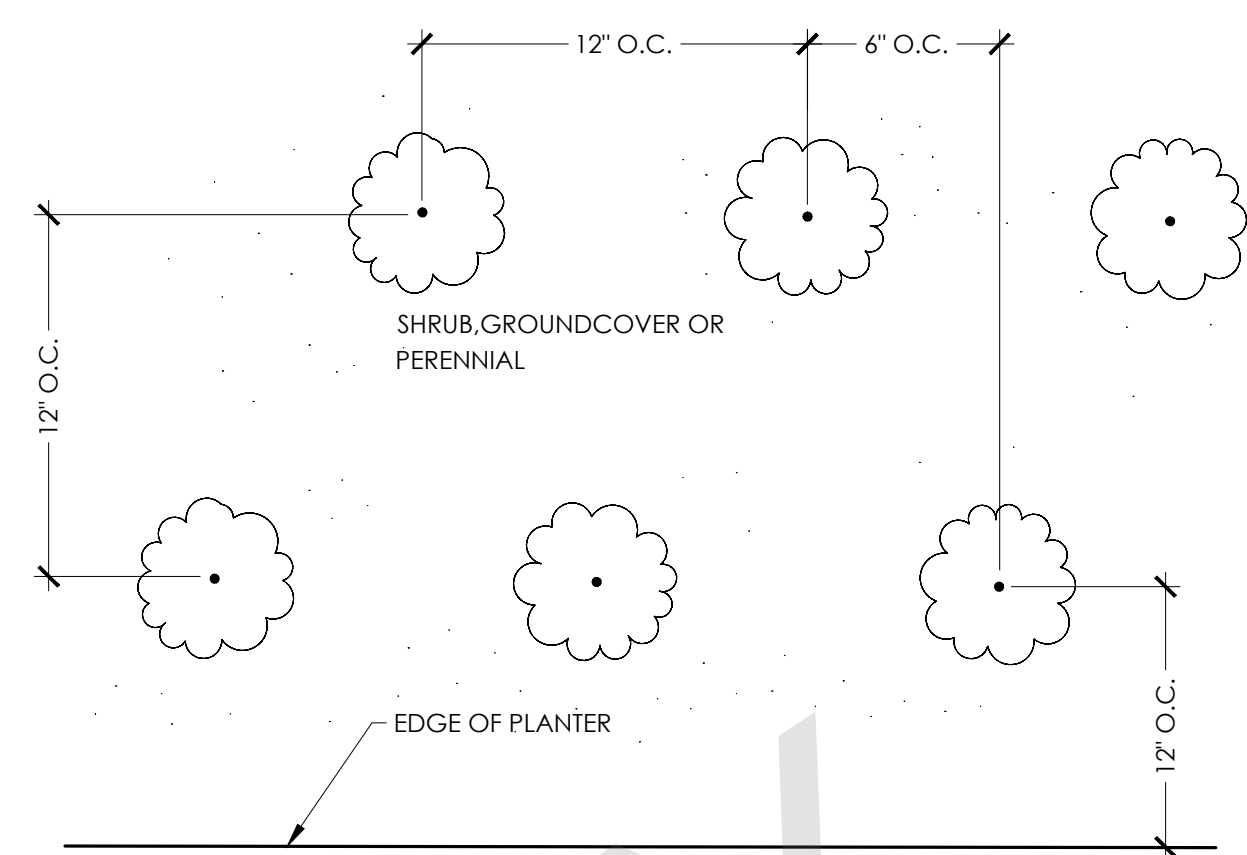
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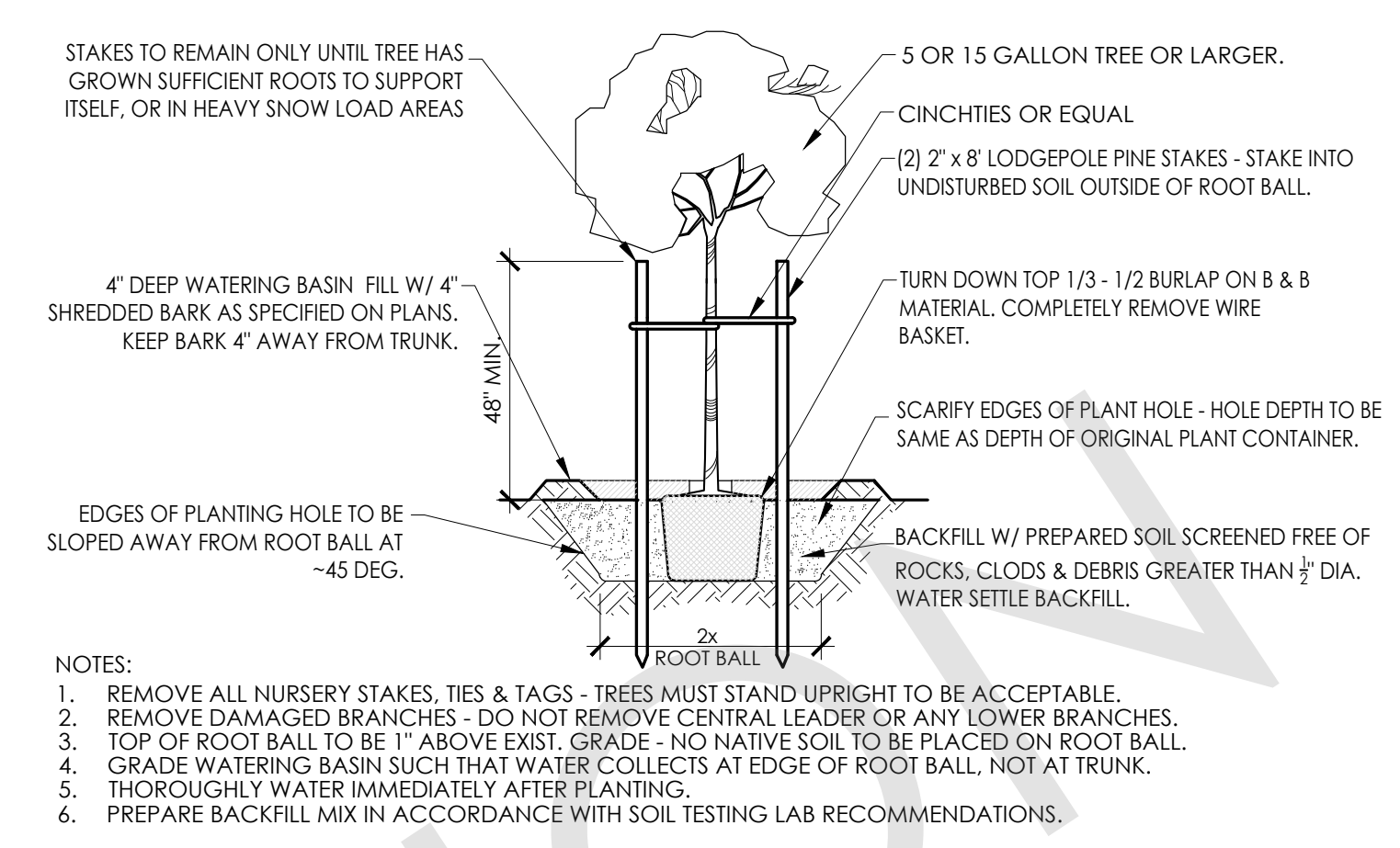
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13720 BUTTERFIELD DR
TRUCKEE, CA. 96161

SHEET TITLE:
PLANTING PLAN
DRAWING NUMBER:
L3.0
PROJECT#

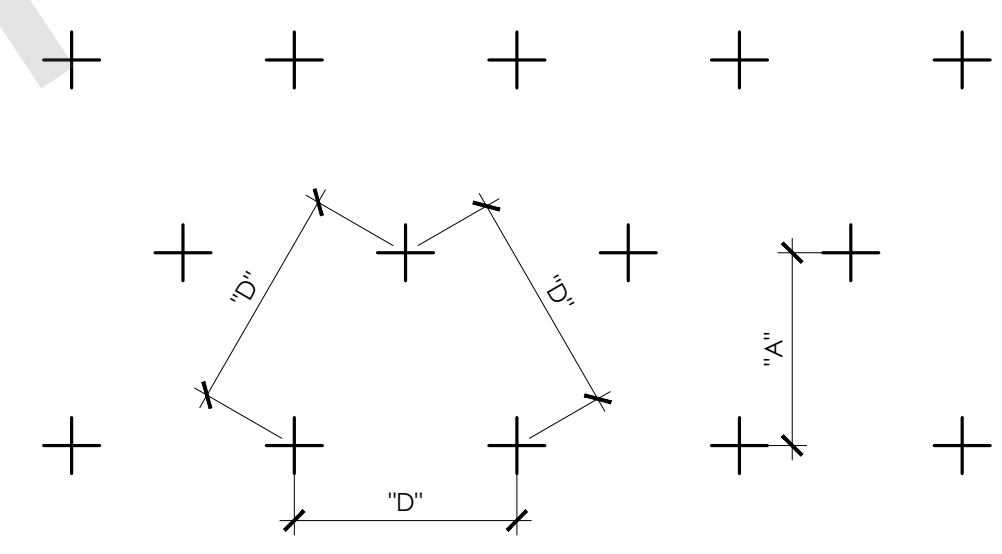


5 MASS PLANTING DETAIL

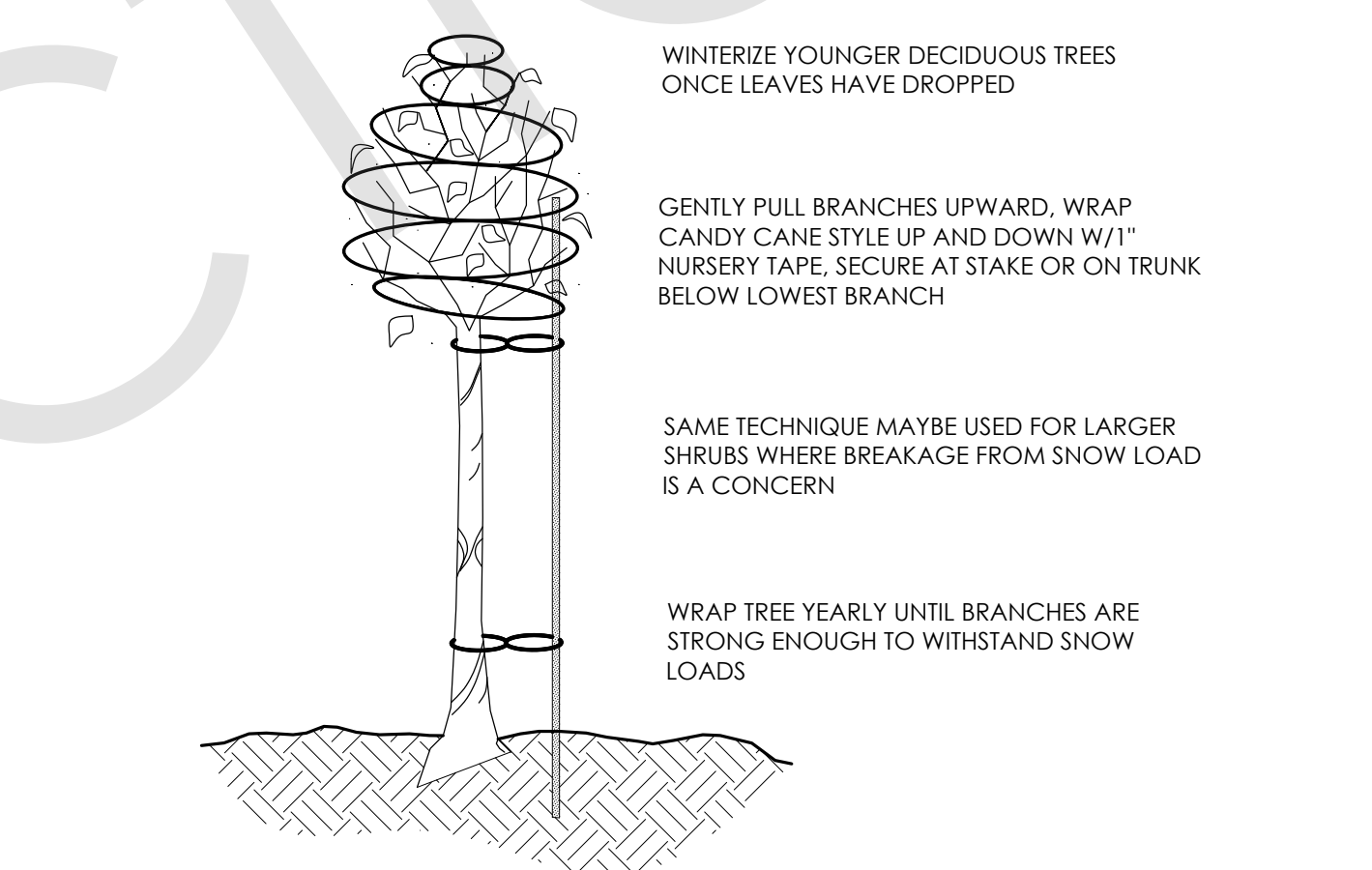


1 B & B TREE PLANTING DETAIL

SPACING "D"	ROW "A"	NO. OF PLANTS	AREA UNIT
6" O.C.	5.2"	4.61	1 SQ. FT.
8" O.C.	6.93"	2.6	↓
10" O.C.	8.66"	1.66	
12" O.C.	10.4"	1.15	↓
15" O.C.	13.0"	7.38	
18" O.C.	15.6"	5.12	↓
24" O.C.	20.8"	2.9	
30" O.C.	26.0"	1.85	↓
36" O.C.	30.0"	1.28	

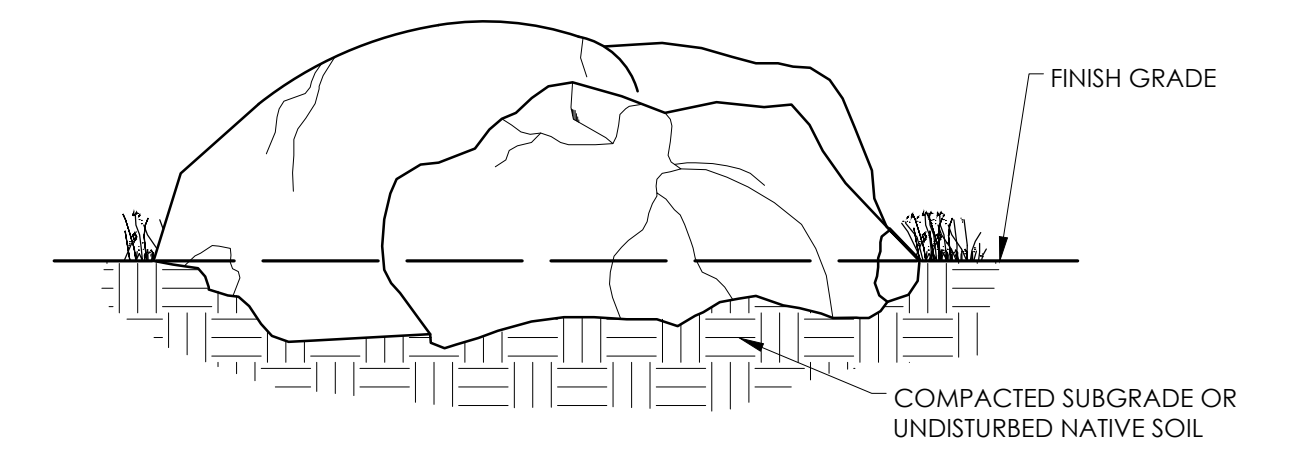


6 GROUND COVER SPACING CHART

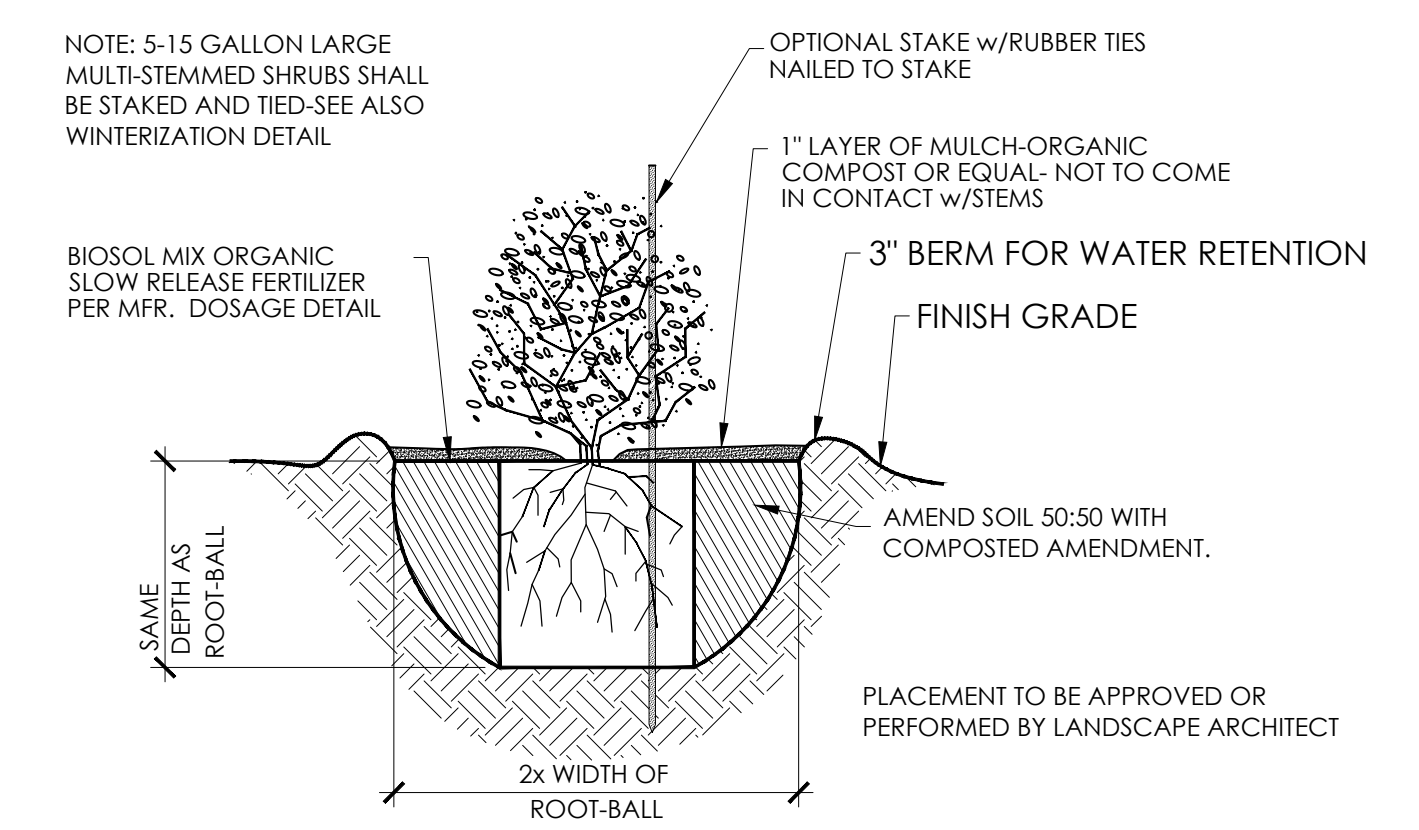


2 TREE WINTERIZATION DETAIL

- NOTES:
- BOULDERS TO BE PLACED UNDER DIRECTION OF LANDSCAPE ARCHITECT
 - THE PLACEMENT OF SITE ROCKS MUST MIMIC EXISTING NEARBY PATTERNS.
 - BURY BOULDERS 1/2-1/3 TO APPEAR 'NATURAL' WITH WEATHERED SIDE UP, UNWEATHERED SIDES BURIED AS DEEP AS POSSIBLE



3 BOULDER PLACEMENT DETAIL



4 SHRUB PLANTING DETAIL

CONSULTANT:

PREPARED FOR:

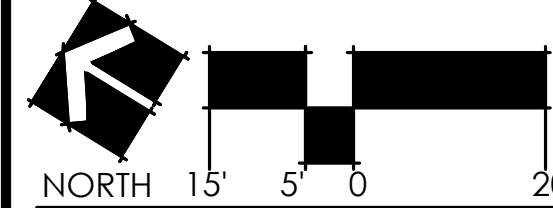
PLANTING
DETAILS

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DRAWN BY: SH CHECKED BY: JPP



DATE: 8-27-21
SCALE: N.T.S.

TS/A
13720 BUTTERFIELD DR
TRUCKEE, CA. 96161

SHEET TITLE:
PLANTINGDETAILS

DRAWING NUMBER:
L3.1

PROJECT#



Chokecherry Tree



Blue Oat Grass



Zebra Grass



Maiden Hair Grass



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: V-5
Subject: Discussion of potential alternative disinfection processes

Background

At the August 18 Board of Directors meeting, there was a request to have a discussion on alternative disinfection processes.

Currently, the Agency utilizes gaseous chlorine in its disinfection process. Prior to final discharge from the plant, treated final effluent from the dual media filters is disinfected with chlorine solution formed from the gaseous chlorine. The injection point is along the 30-inch final effluent pipeline prior to reaching the effluent disposal fields.

In addition to final effluent disinfection, the Agency may also add chlorine to the wastewater treatment process at the following locations: (1) the headworks for odor control; (2) return activated sludge and/or stripper sludge underflow to control filamentous growth; (3) conventional and chemical treatment effluents to improve water quality; and (4) to the multipurpose pump station and the dual media filters to control biological growth.

The chlorine facility is housed in Building 75 where 1-ton gaseous chlorine cylinders are delivered and stored. The building also contains chlorinators, a chlorine gas scrubber system, and an associated alarm system. Chlorine gas is metered by four chlorinators. A primary chlorinator supplies chlorine solution for plant effluent disinfection, and a secondary chlorinator can supply chlorine to the other application points as required. Of the remaining two chlorinators, one is a backup to the two main chlorinators, and one is used to chlorinate the dual media filters. The chlorinators draw from four gaseous chlorine cylinders, which are manifolded together in pairs and utilize a Powell valve closure system for added safety.

Although the current process is effective, there are other disinfection processes that are being utilized in the industry.

The Master Sewer Plan (MSP) does address the current disinfection process and proposes an alternative disinfection method. The MSP is expected to be presented to the Board of Directors in the upcoming October or November meeting and discussion points should be taken into consideration as the Board of Directors reviews the MSP.

Fiscal Impact

None.

Attachments

None.

Recommendation

Management recommends a discussion of potential alternative disinfection processes which will be considered during the review of the Master Sewer Plan.

Review Tracking

Submitted By:



LaRue Griffin
General Manager



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: VI-1
Subject: Department Reports

Background

Department reports for previous and current month(s).

Fiscal Impact

None.

Attachments

1. Operations Department Report.
2. Maintenance Department Report.
3. Engineering Department Report.
4. Administrative Department Report.

Recommendation

No action required.

Review Tracking

Submitted By: _____


LaRue Griffin
General Manager



TAHOE-TRUCKEE SANITATION AGENCY OPERATIONS DEPARTMENT REPORT

Date: September 15, 2021
To: Board of Directors
From: Michael Peak, Operations Department Manager
Subject: Operations Department Report

Compliance:

All plant waste discharge requirements were met for the month.

Operations:

- Overall, the plant performed well through the month.
- Wastewater treatment plant operators continue to process weekend laboratory compliance samples.
- Well #31 pH samples read 6.6 for the month, operations continue to add caustic to the final effluent to maintain a 7.0 pH set point.

Operations Work Orders:

- Completed this month: 7
- Pending: 5

Laboratory:

- Staff performed necessary laboratory testing per WDR requirements and operational needs for the month.
- In the process of scheduling International Accreditation Services to perform third-party assessment.
- Staff continue to train remaining operators for weekend testing and will be completing DOC's.

Laboratory Corrective Actions:

- Completed this month: 2
- Pending: 2
- New: 0


Plant Data:

Influent Flow Description	MG
Monthly average daily ⁽¹⁾	3.13
Monthly maximum instantaneous ⁽¹⁾	5.63
Maximum 7- day average	4.05

Effluent Limitation Description ⁽²⁾	WDR Monthly Average		WDR Daily Maximum	
	<i>Recorded</i>	<i>Limit</i>	<i>Recorded</i>	<i>Limit</i>
Suspended Solids (mg/l)	2.5	10.0	2.9	20.0
Turbidity (NTU)	NA	NA	3.2	10.0
Total Phosphorus (mg/l)	0.36	0.80	0.60	1.50
Chemical Oxygen Demand (mg/l)	36	45	42	60

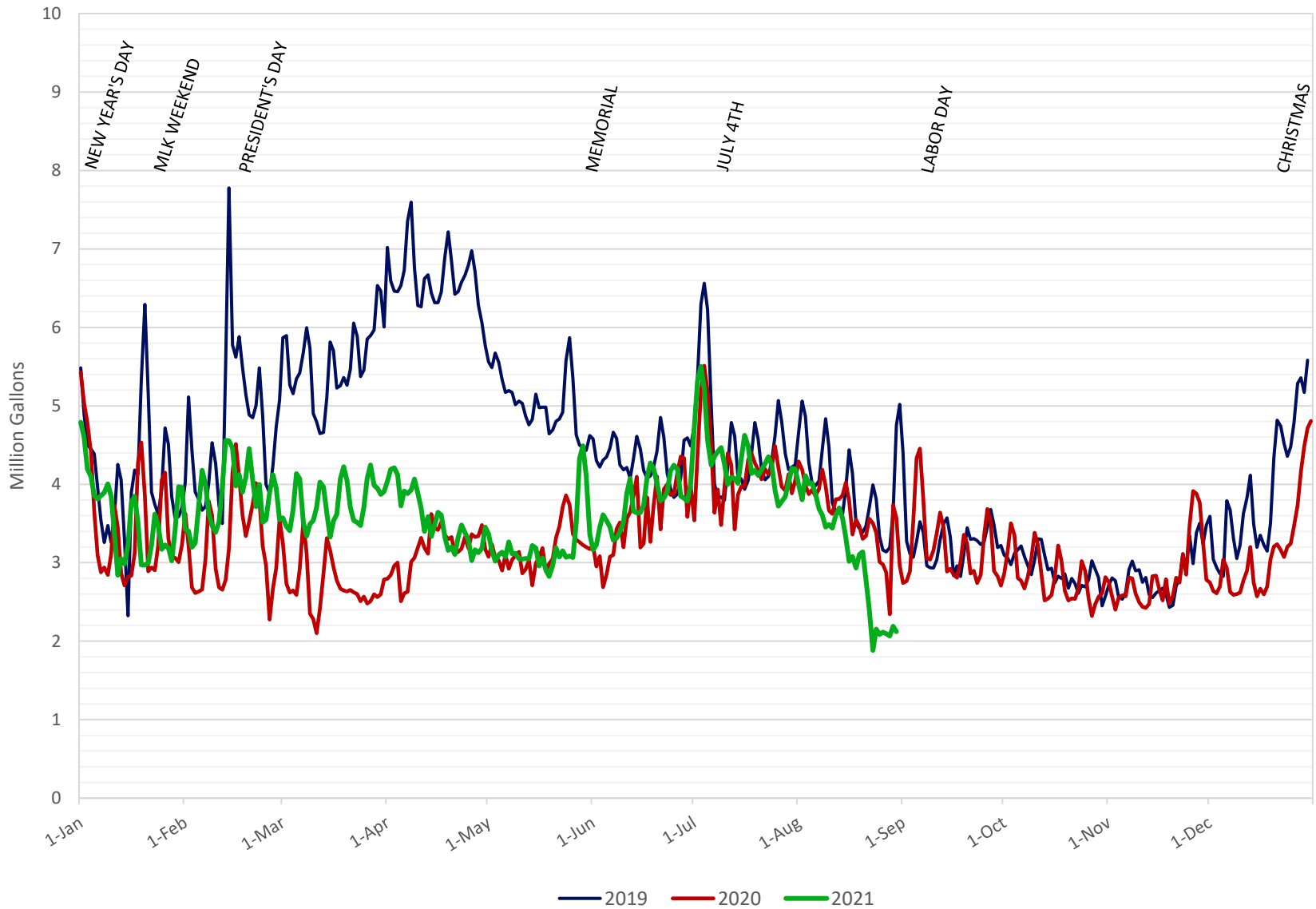
- Notes:
1. Flows are depicted in the attached graph.
 2. Effluent table data per WDR reportable frequency. Attached graphs depict all recorded data.

Review Tracking:

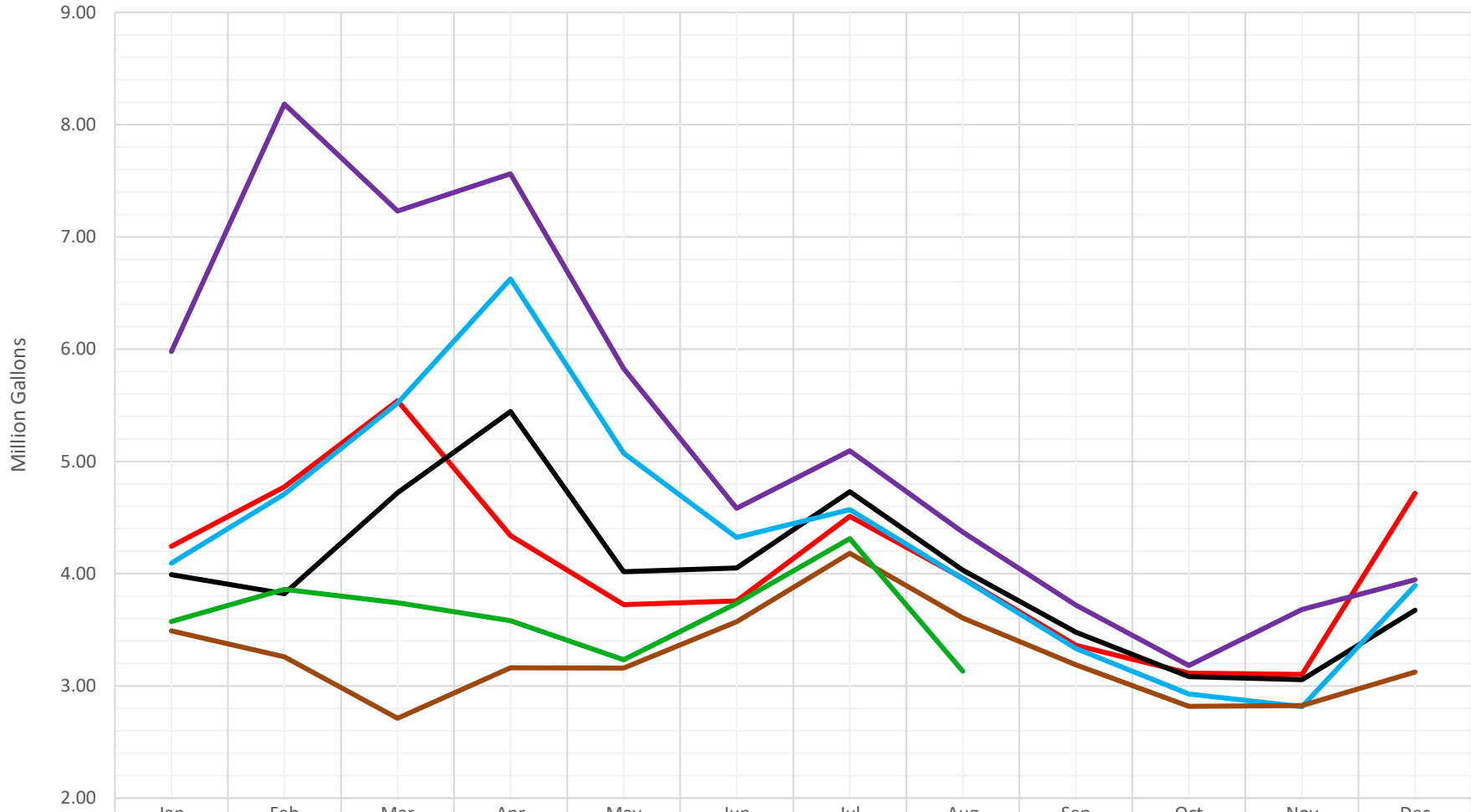
Submitted By: 
 Michael Peak
 Operations Manager

Approved By: 
 LaRue Griffin
 General Manager

T-TSA Daily Influent Flow

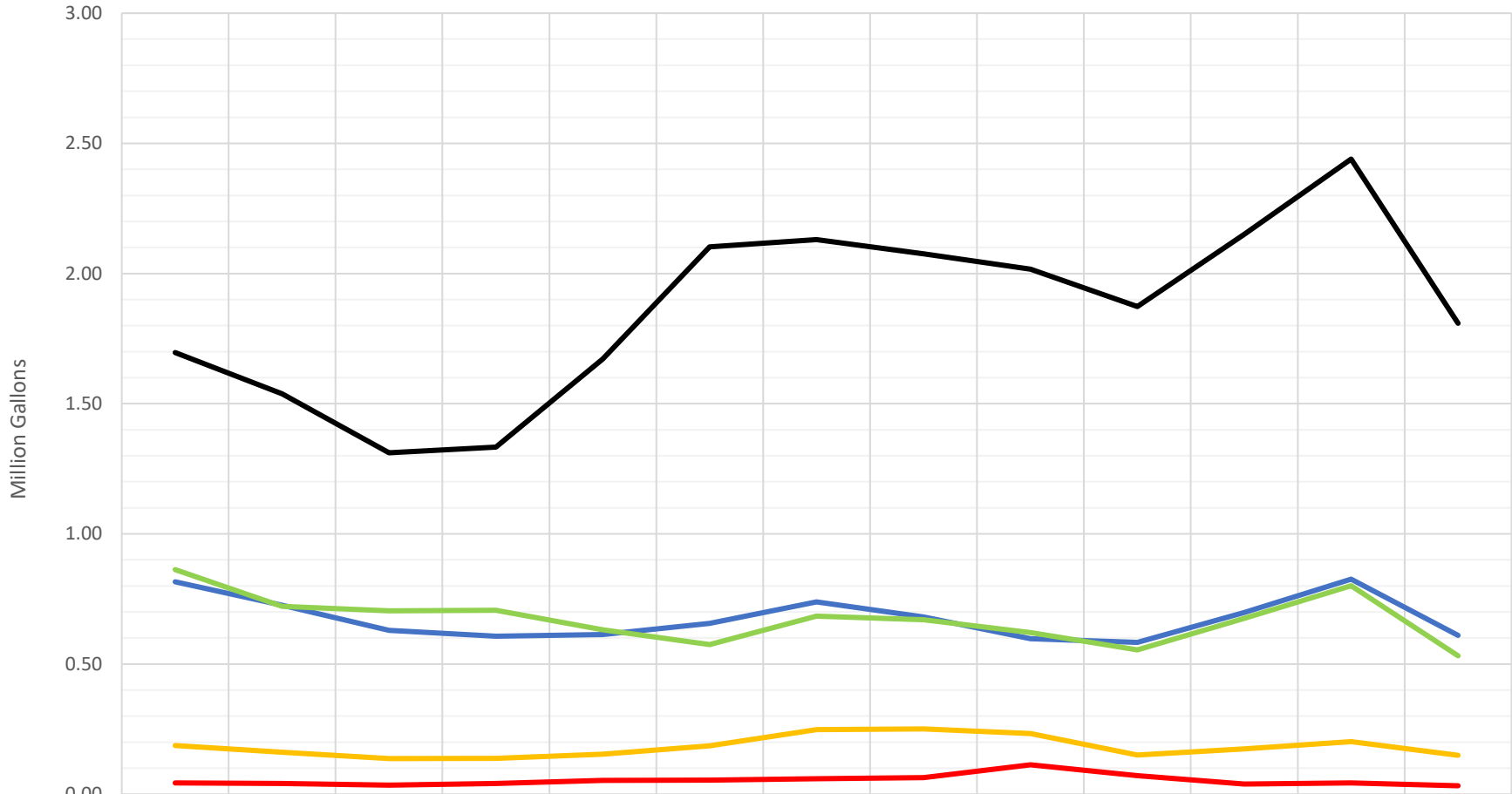


Monthly Average Daily Flow (Influent)



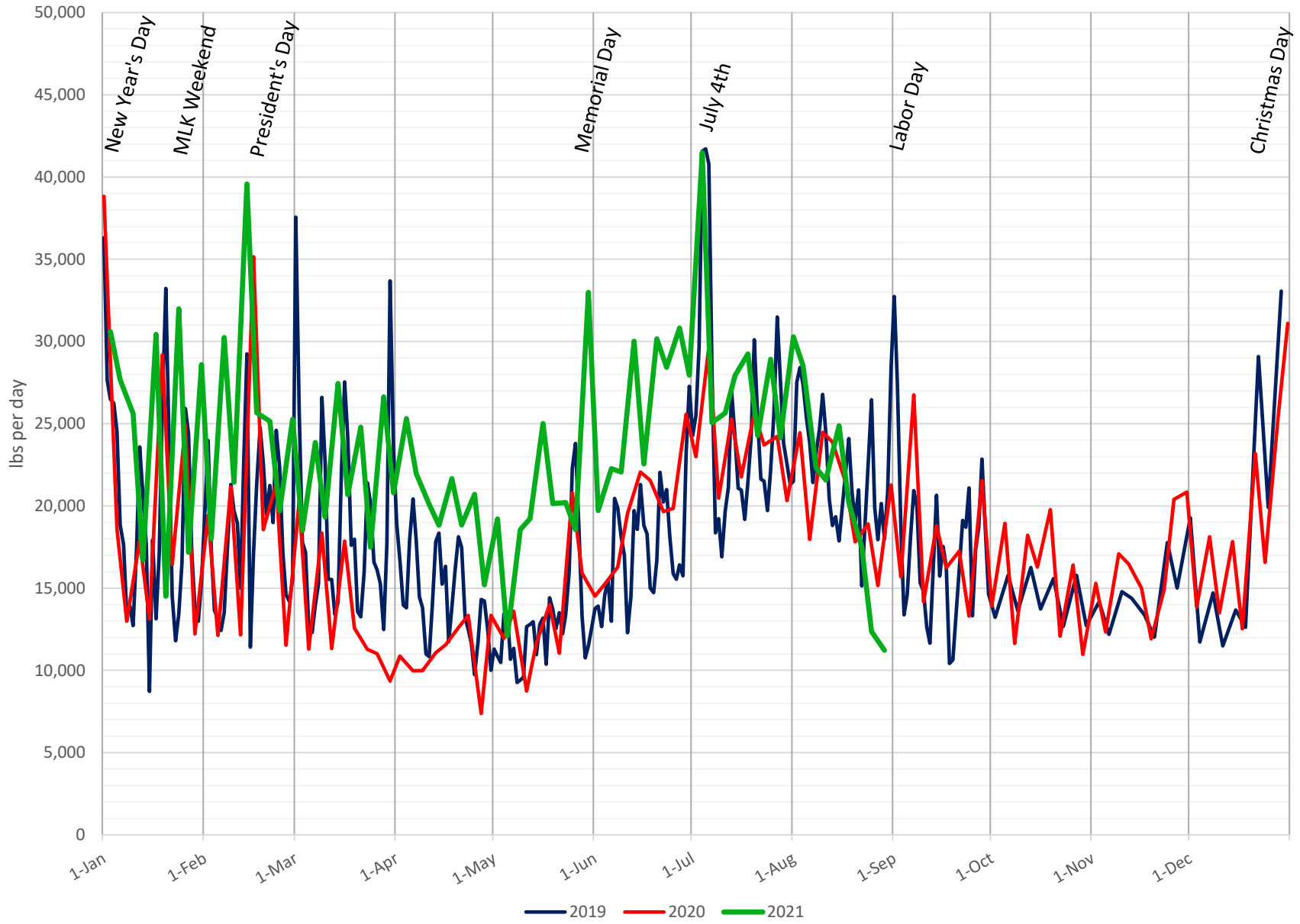
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	4.24	4.77	5.54	4.34	3.72	3.76	4.51	3.96	3.36	3.11	3.10	4.72
2017	5.98	8.18	7.23	7.56	5.83	4.58	5.09	4.37	3.72	3.18	3.68	3.95
2018	3.99	3.82	4.72	5.44	4.02	4.05	4.73	4.03	3.48	3.08	3.06	3.67
2019	4.09	4.71	5.52	6.63	5.07	4.32	4.57	3.96	3.33	2.93	2.81	3.89
2020	3.49	3.26	2.71	3.16	3.16	3.57	4.18	3.61	3.19	2.82	2.83	3.12
2021	3.57	3.86	3.74	3.58	3.23	3.74	4.31	3.13				

Monthly Average Daily Flow (Districts)

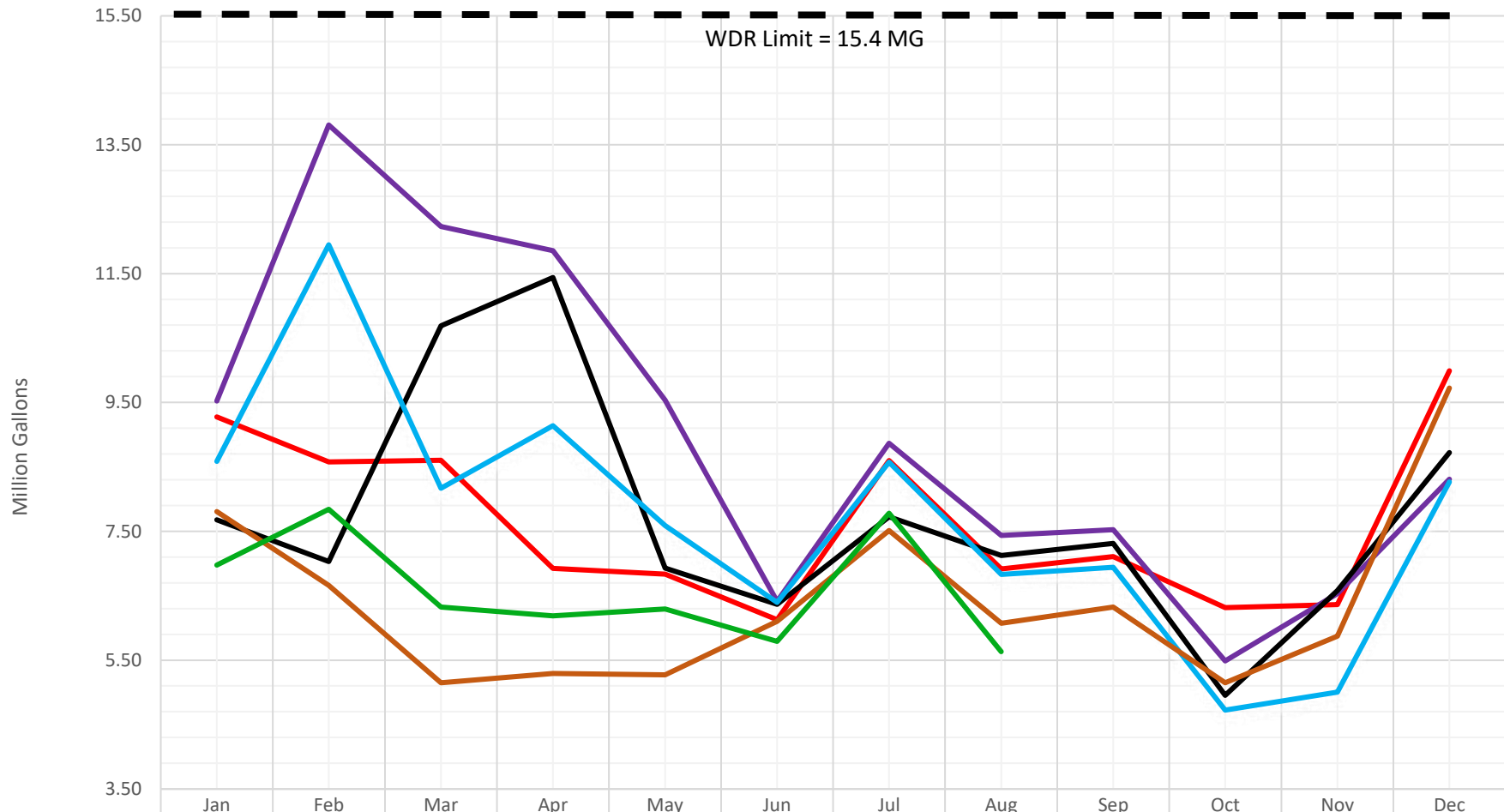


	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21
NTPUD	0.82	0.73	0.63	0.61	0.61	0.66	0.74	0.68	0.60	0.58	0.70	0.83	0.61
TCPUD	0.86	0.72	0.70	0.71	0.63	0.57	0.68	0.67	0.62	0.55	0.68	0.80	0.53
ASCWD	0.04	0.04	0.03	0.04	0.05	0.05	0.06	0.06	0.11	0.07	0.04	0.04	0.03
OVPSD	0.19	0.16	0.14	0.14	0.15	0.19	0.25	0.25	0.23	0.15	0.17	0.20	0.15
TSD	1.70	1.54	1.31	1.33	1.67	2.10	2.13	2.08	2.02	1.87	2.15	2.44	1.81

COD Influent Loading

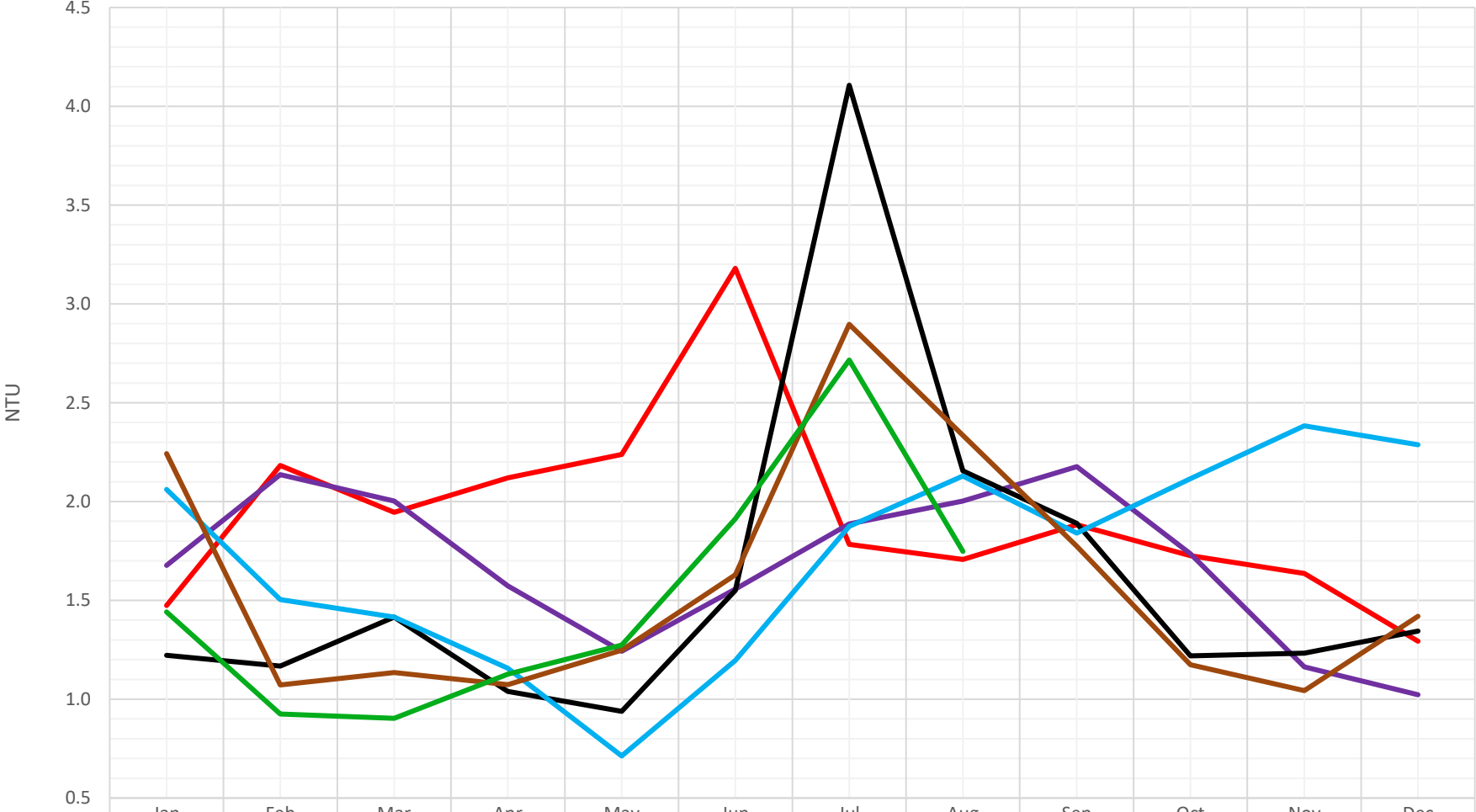


Monthly Maximum Instantaneous Flow (Influent)



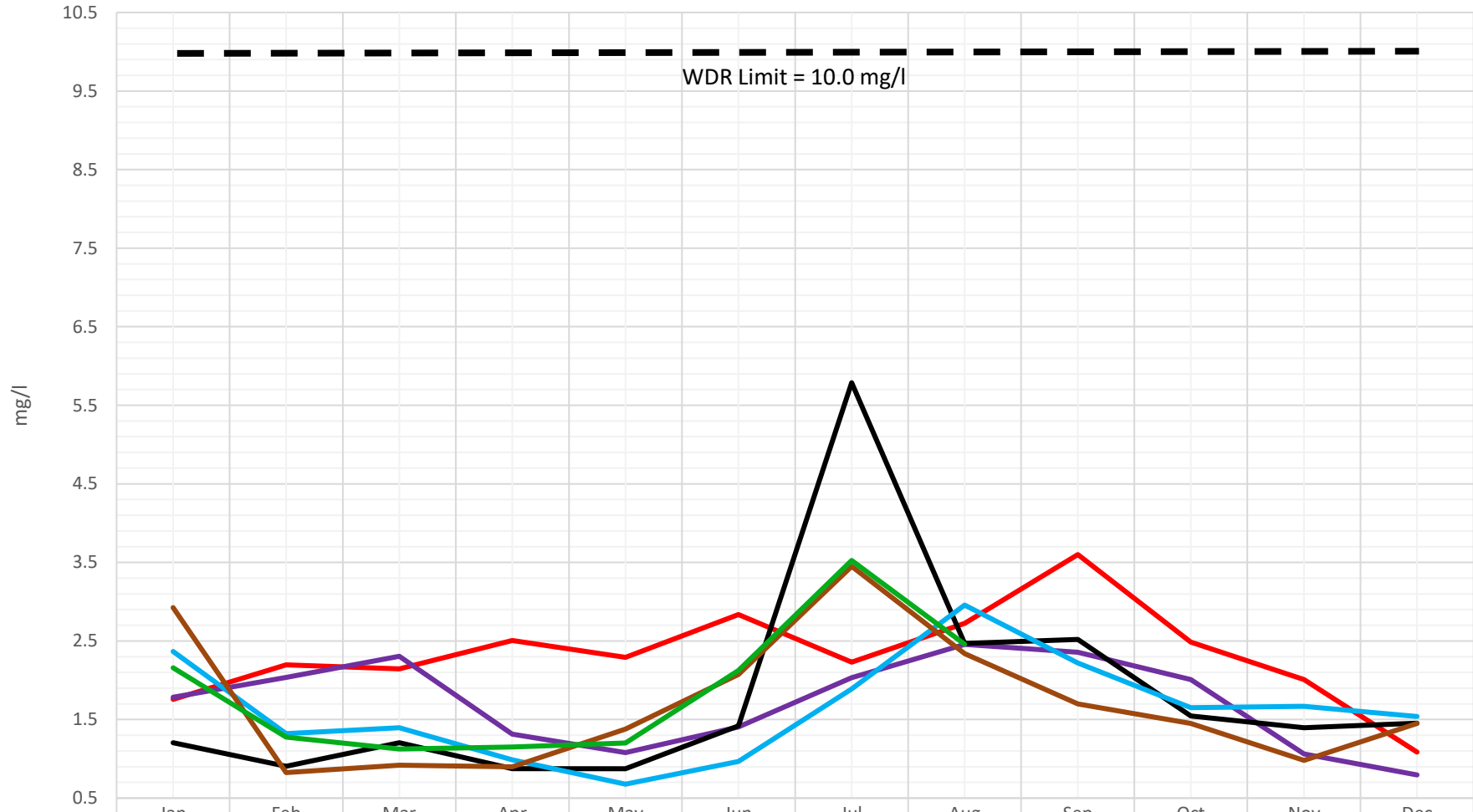
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	9.28	8.58	8.60	6.93	6.84	6.13	8.60	6.92	7.11	6.32	6.36	9.99
2017	9.52	13.81	12.23	11.86	9.54	6.41	8.87	7.44	7.53	5.49	6.53	8.31
2018	7.68	7.03	10.69	11.44	6.93	6.37	7.73	7.12	7.31	4.95	6.58	8.72
2019	8.58	11.95	8.17	9.14	7.59	6.40	8.57	6.83	6.94	4.73	5.00	8.26
2020	7.81	6.66	5.15	5.29	5.27	6.10	7.51	6.07	6.33	5.15	5.87	9.72
2021	6.98	7.84	6.33	6.19	6.29	5.79	7.78	5.63				

Monthly Average Daily Turbidity (Effluent)



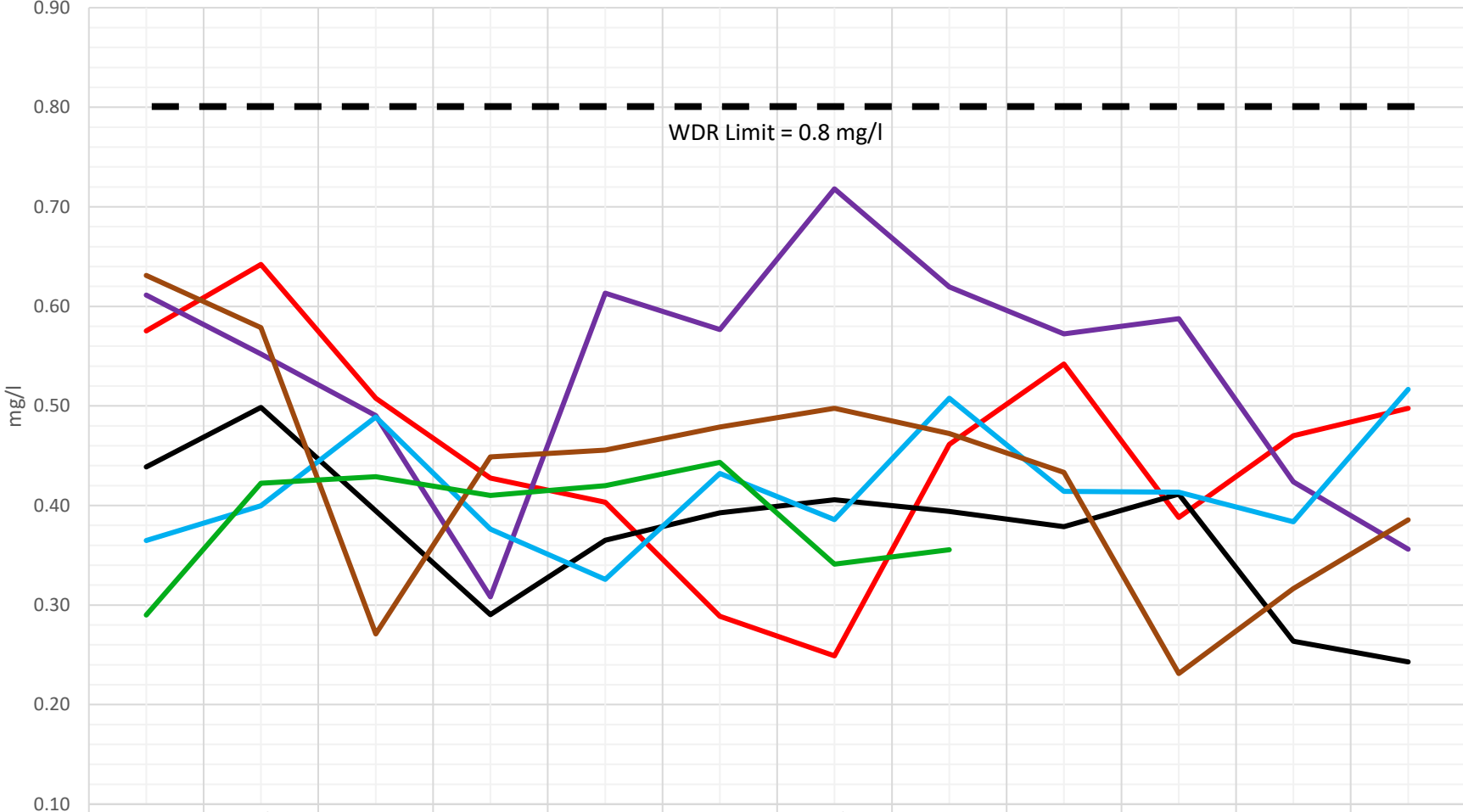
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	1.5	2.2	1.9	2.1	2.2	3.2	1.8	1.7	1.9	1.7	1.6	1.3
2017	1.7	2.1	2.0	1.6	1.2	1.6	1.9	2.0	2.2	1.7	1.2	1.0
2018	1.2	1.2	1.4	1.0	0.9	1.6	4.1	2.2	1.9	1.2	1.2	1.3
2019	2.1	1.5	1.4	1.2	0.7	1.2	1.9	2.1	1.8	2.1	2.4	2.3
2020	2.2	1.1	1.1	1.1	1.2	1.6	2.9	2.3	1.8	1.2	1.0	1.4
2021	1.4	0.9	0.9	1.1	1.3	1.9	2.7	1.7				

Monthly Average Daily Suspended Solids (Effluent)



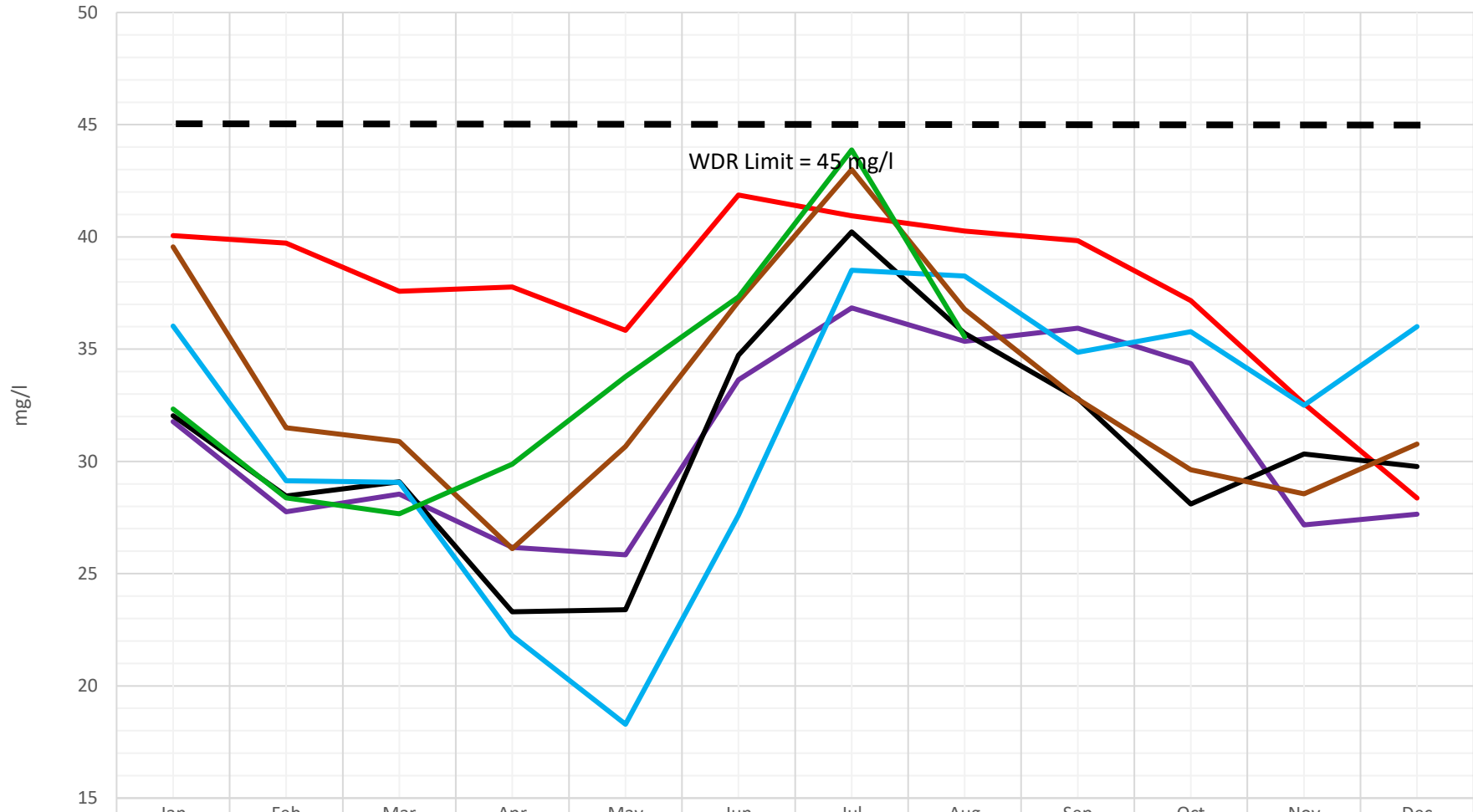
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	1.8	2.2	2.1	2.5	2.3	2.8	2.2	2.7	3.6	2.5	2.0	1.1
2017	1.8	2.0	2.3	1.3	1.1	1.4	2.0	2.5	2.4	2.0	1.1	0.8
2018	1.2	0.9	1.2	0.9	0.9	1.4	5.8	2.5	2.5	1.5	1.4	1.5
2019	2.4	1.3	1.4	1.0	0.7	1.0	1.9	3.0	2.2	1.7	1.7	1.5
2020	2.9	0.8	0.9	0.9	1.4	2.1	3.5	2.3	1.7	1.5	1.0	1.5
2021	2.2	1.3	1.1	1.2	1.2	2.1	3.5	2.5				

Monthly Average Daily Total Phosphorus (Effluent)



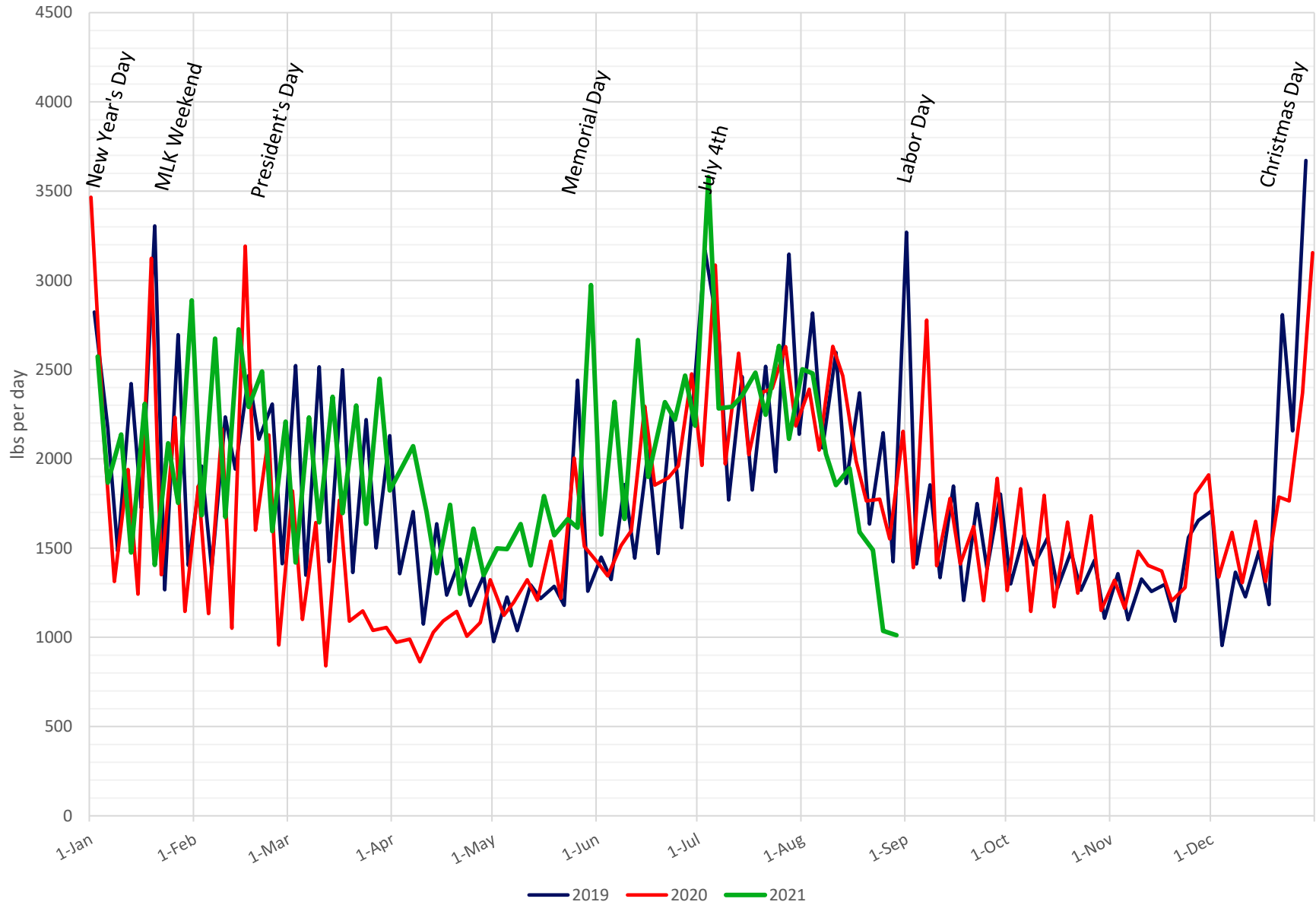
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	0.58	0.64	0.51	0.43	0.40	0.29	0.25	0.46	0.54	0.39	0.47	0.50
2017	0.61	0.55	0.49	0.31	0.61	0.58	0.72	0.62	0.57	0.59	0.42	0.36
2018	0.44	0.50	0.39	0.29	0.37	0.39	0.41	0.39	0.38	0.41	0.26	0.24
2019	0.36	0.40	0.49	0.38	0.33	0.43	0.39	0.51	0.41	0.41	0.38	0.52
2020	0.63	0.58	0.27	0.45	0.46	0.48	0.50	0.47	0.43	0.23	0.32	0.39
2021	0.29	0.42	0.43	0.41	0.42	0.44	0.34	0.36				

Monthly Average Daily Chemical Oxygen Demand (Effluent)

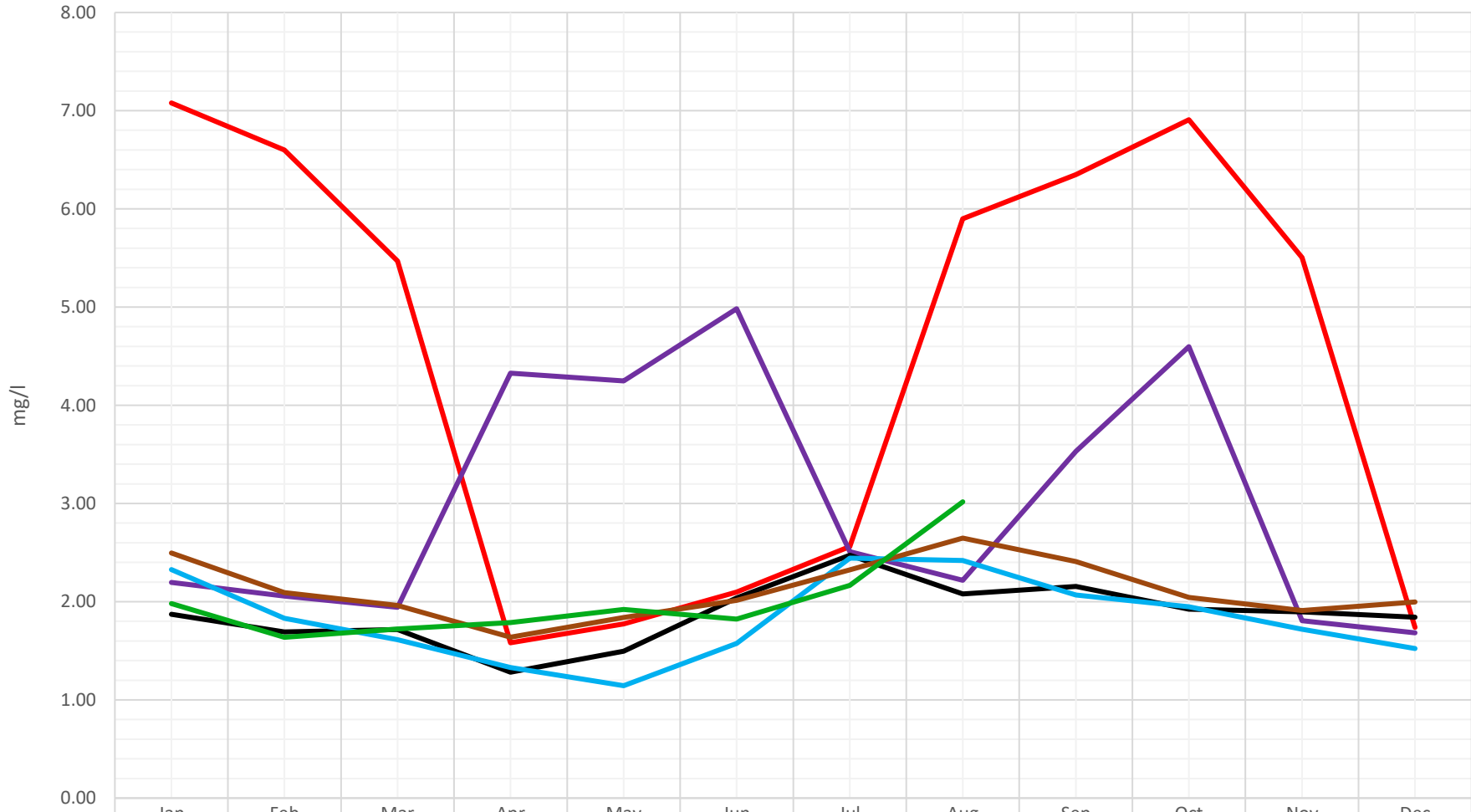


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	40	40	38	38	36	42	41	40	40	37	33	28
2017	32	28	29	26	26	34	37	35	36	34	27	28
2018	32	28	29	23	23	35	40	36	33	28	30	30
2019	36	29	29	22	18	28	39	38	35	36	33	36
2020	40	32	31	26	31	37	43	37	33	30	29	31
2021	32	28	28	30	34	37	44	36				

TKN Influent Loading

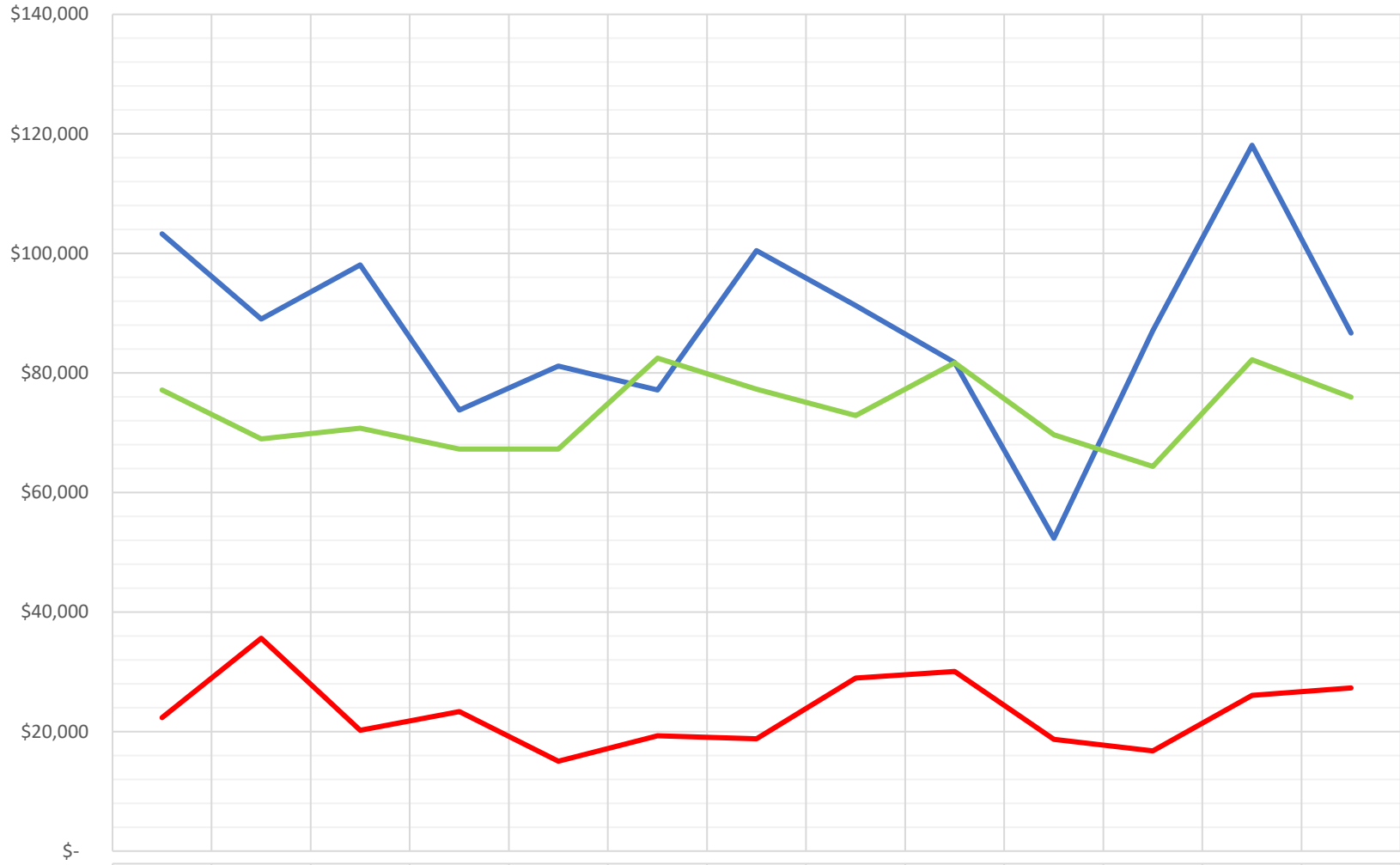


Monthly Average Daily Total Nitrogen (Effluent)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	7.08	6.60	5.47	1.58	1.77	2.10	2.56	5.90	6.35	6.91	5.50	1.74
2017	2.20	2.06	1.94	4.33	4.25	4.98	2.51	2.22	3.53	4.60	1.81	1.68
2018	1.87	1.69	1.72	1.28	1.50	2.04	2.47	2.08	2.16	1.92	1.90	1.84
2019	2.33	1.83	1.61	1.33	1.14	1.57	2.44	2.42	2.07	1.95	1.72	1.52
2020	2.50	2.09	1.96	1.64	1.84	2.01	2.32	2.65	2.41	2.04	1.91	2.00
2021	1.98	1.64	1.72	1.79	1.92	1.82	2.17	3.02				

Chemical, Power and Sludge Disposal Costs



	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21
Chemical	\$103,254	\$89,024	\$98,091	\$73,798	\$81,138	\$77,169	\$100,486	\$91,278	\$81,758	\$52,348	\$87,109	\$118,100	\$86,660
Power	\$77,175	\$68,963	\$70,762	\$67,261	\$67,247	\$82,480	\$77,270	\$72,881	\$81,705	\$69,645	\$64,361	\$82,199	\$75,956
Sludge Disposal	\$22,342	\$35,610	\$20,211	\$23,339	\$15,036	\$19,302	\$18,781	\$28,938	\$30,061	\$18,691	\$16,768	\$26,075	\$27,293



TAHOE-TRUCKEE SANITATION AGENCY MAINTENANCE DEPARTMENT REPORT


Date: September 15, 2021
To: Board of Directors
From: Richard Pallante, Maintenance Manager
Subject: Maintenance Report


- ◆ **Project support:** In the month of August, Maintenance staff provided support for the following projects:
 - Headworks Upgrade
 - 2021 Plant Painting Project.

- ◆ **Plant Maintenance projects:** Maintenance staff performed tasks on the following ongoing projects:
 - Defensible Space Phase II.
 - Continue shop reorganization and IT office relocation.
 - In house fabrication of cake conveyor intermediate bearing.
 - Set-up of portable pump at ballast pond for testing.
 - Rebuild of elutriant pump, primary sludge and scum pumps.
 - Installation of conduit and solar panel for security camera project.
 - SCADA Headworks project HMI design.
 - SCADA telemetry site new code for increased communication reliability.

- ◆ **Work Orders**
 - Completed this month: Mechanical-37, Fleet-7, Electrical & Instrumentation-31, IT-279.
 - Pending: Mechanical-133, Fleet-33, Electrical & Instrumentation-36, IT-12.

Review Tracking:

Submitted By: 
Richard Pallante
Maintenance Manager

Approved By: 
LaRue Griffin
General Manager



Defensible Space Phase II Before



Defensible Space Phase II After



Cake Conveyor Intermediate Bearing



Install of Solar Panel for Security Camera



TAHOE-TRUCKEE SANITATION AGENCY ENGINEERING DEPARTMENT REPORT

Date: September 15, 2021
To: Board of Directors
From: Jay Parker, Engineering Manager
Subject: Engineering Report


◆ **Projects:** In the month of August, Engineering staff continued working on the following projects:

- Master Sewer Plan
- Digestion Improvements Study
- 2020 Digital Scanning of Sewer Lines Project
- 2020 Headworks Improvements Project
- 2021 Asphalt Sealing Project
- 2021 Chiller Replacement Project
- 2021 Chlorine Scrubber Improvements Project
- 2021 Digital Scanning of Sewer Lines Project
- 2021 Plant Painting Project
- 2022 Final Effluent Meter Project
- 2022 Filter Influent Condition Assessment Project
- 2022 Control Room No. 2 & 13 Upgrades Project
- 2022 Plant Coating Improvements Project
- 2022 Roof Repair Project

◆ **Work Orders:**

- Engineering:
 - Completed this month: 0
 - Pending: 0
- Safety:
 - Completed this month: 1
 - Pending: 0

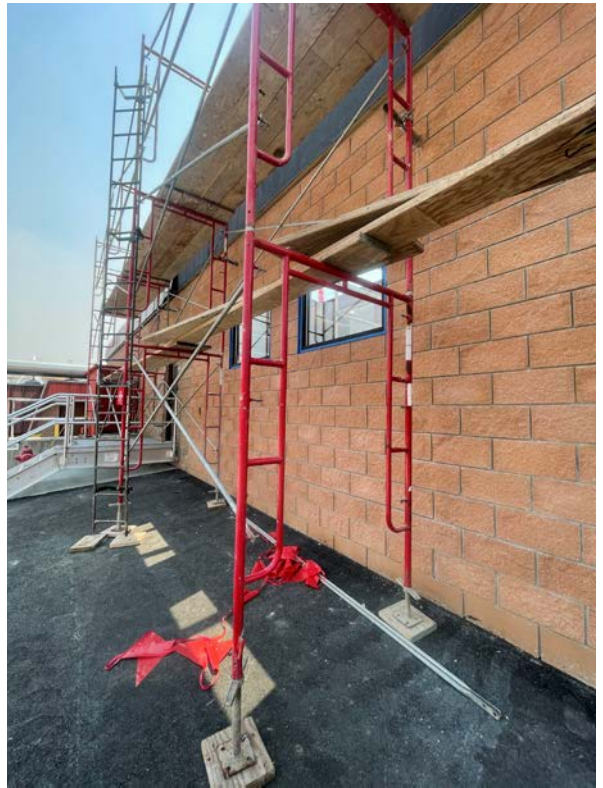
Review Tracking:

Submitted By: 
Jay Parker
Engineering Manager

Approved By: 
LaRue Griffin
General Manager



2020 Headworks Improvements Project
Expansion of Headworks Building



2020 Headworks Improvements Project
Expansion of Headworks Building



2021 Plant Painting Project
Stripper Basin No. 58



2021 Plant Painting Project
Secondary Clarifier No. 2



2021 Asphalt Sealing Project
Front Gate - Before



2021 Asphalt Sealing Project
Front Gate - After



2021 Asphalt Sealing Project
Access Road – In Progress



2021 Asphalt Sealing Project
Access Road – After



TAHOE-TRUCKEE SANITATION AGENCY ADMINISTRATIVE DEPARTMENT REPORT

Date: September 15, 2021
To: Board of Directors
From: Crystal Sublet, Finance and Administrative Manager
Subject: Administrative Report

- Accounting
 - Completed monthly A/P, A/R, payroll, general ledger processes, and bank reconciliations.
 - Continued coordination with Caselle software for ongoing training and troubleshooting.
 - Continued preparation of fiscal year 2020-2021 financials.
 - Supported interim field audit for fiscal year 2020-2021 financial audit Pre-Audit preparation of fiscal year 2020-2021.
- Billing/Customer Service
 - General assistance with customer accounts, utility demands, adjustments, and plan review.
 - Activated new account permits and prepared letters, reports and invoices.
 - Continued support to Accounting to temporarily process Agency purchase requisitions, purchase orders and purchases temporarily.
 - Continued coordination with Caselle software for ongoing training and troubleshooting.
- General Administration
 - Performed various administrative duties to assist GM and Board of Directors.
 - Continued preparation of fiscal year 2020-2021 financials.
 - Supported interim field audit for fiscal year 2020-2021 financial audit Pre-Audit preparation of fiscal year 2020-2021.
 - Met with various investment advisors.
 - Completed three-day training from GFOA for Best Practices and Strategies in Public Investing. Received Certificate of Professional Development for 9.00 CPE credits.

Review Tracking

Submitted By: *Crystal A Sublet*
Crystal Sublet
Finance and Administrative Manager

Approved By: *LaRue Griffin*
LaRue Griffin
General Manager

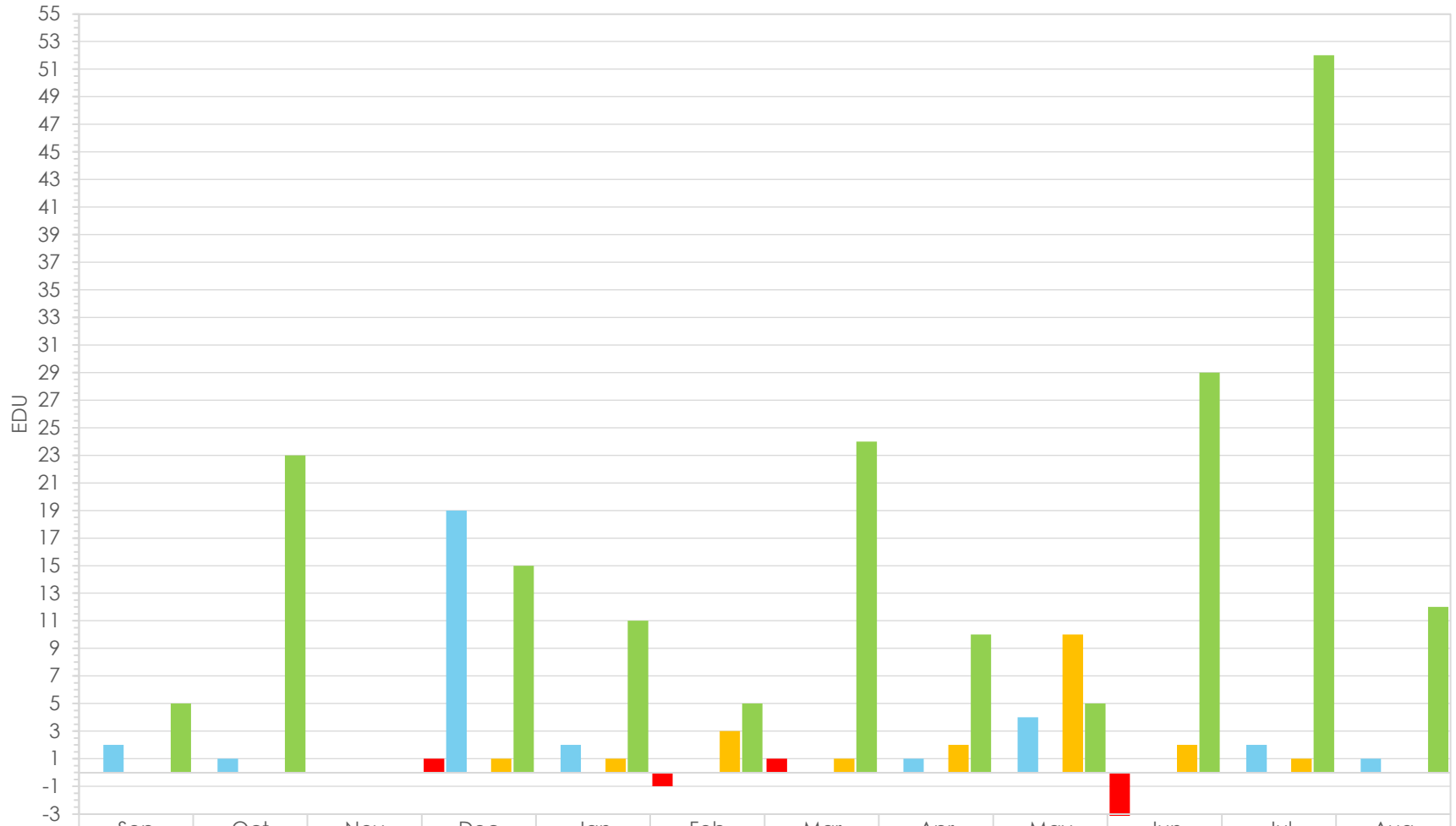
CONNECTION FEES - AUGUST 2021

Connection Fee Type	MTD Count (#)	MTD Total Ft ²	MTD Total \$	YTD Count (#)	YTD Total Ft ²	YTD Total \$
Residential	41	146,316	\$ 317,552.30	95	301,366	\$ 657,889.80
Residential Ft ² Additions	5	4,454	\$ 7,794.50	8	8,922	\$ 15,613.50
Residential Ft ² Additions - Exempt	0	0	N/A	0	0	N/A
Accessory Dwelling Unit (ADU)	1	1,931	\$ 4,879.25	3	3,678	\$ 10,936.50
Accessory Dwelling Unit (ADU) - Exempt	0	0	N/A	0	0	N/A
Commercial	0	N/A	\$ -	1	N/A	\$ 3,500.00
Industrial	0	N/A	\$ -	0	N/A	\$ -
Grand Total	47	152,701	\$ 330,226.05	107	313,966	\$ 687,939.80

INSPECTIONS - AUGUST 2021

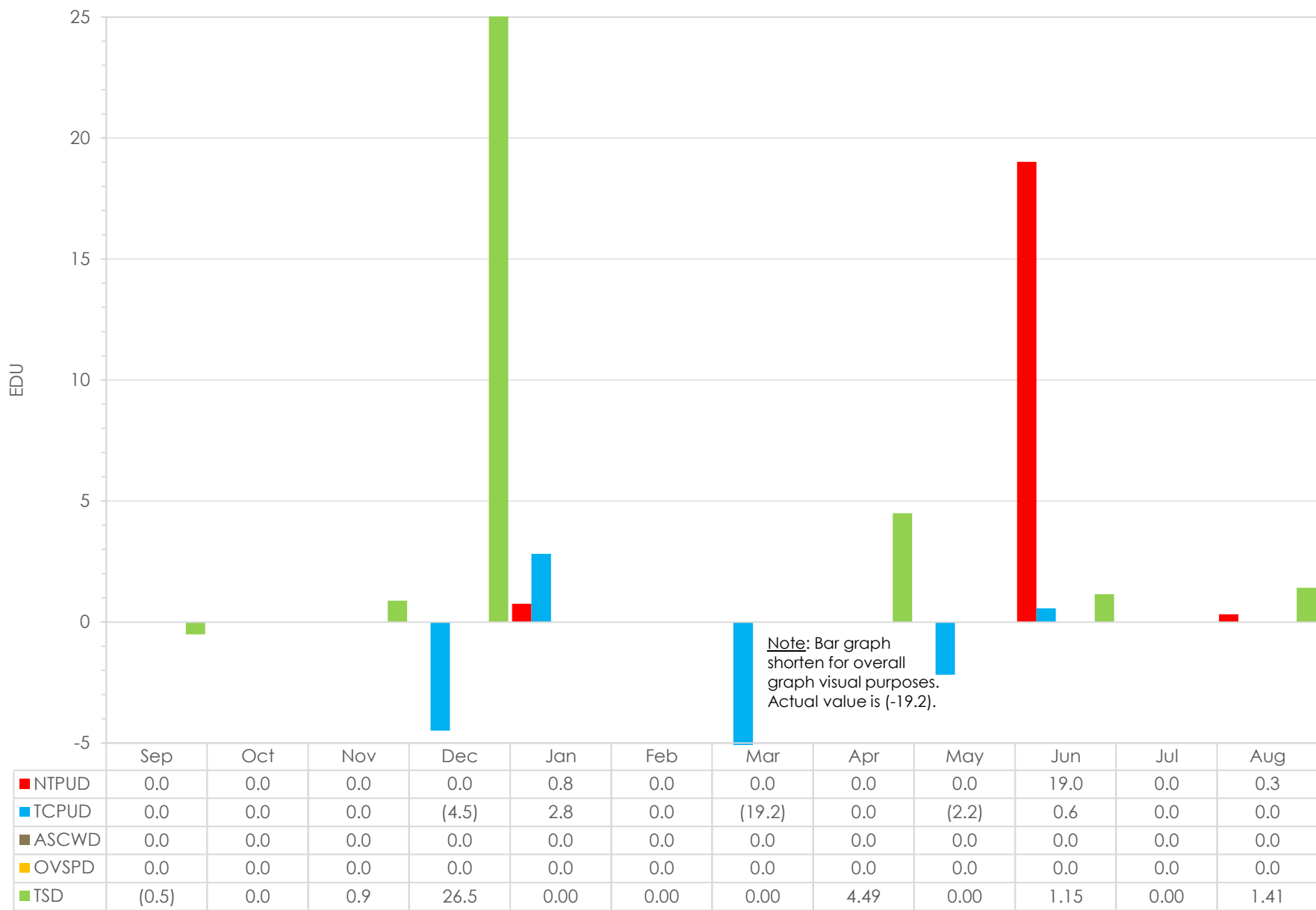
Inspection Type	MTD Count #	MTD Total	YTD Count #	YTD Total
Commercial	0	0	1	1
Residential (Drive-by of Suspended Accounts)	0		0	

Residential EDU Summary

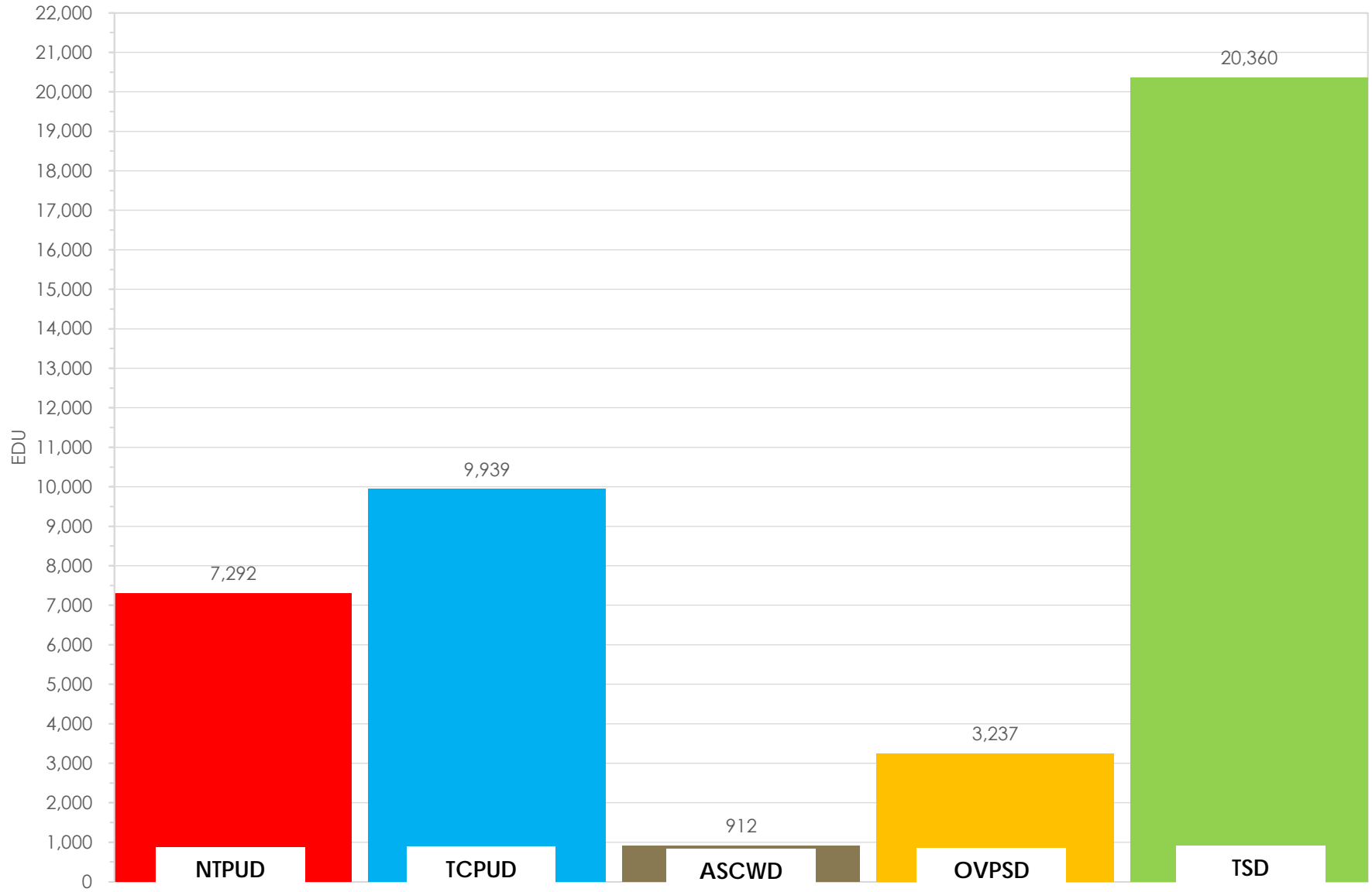


	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
■ NTPUD	0	0	0	1	0	(1)	1	0	0	(19)	0	0
■ TCPUD	2	1	0	19	2	0	0	1	4	0	2	1
■ ASCWWD	0	0	0	0	0	0	0	0	0	0	0	0
■ OVSPD	0	0	0	1	1	3	1	2	10	2	1	0
■ TSD	5	23	0	15	11	5	24	10	5	29	52	12

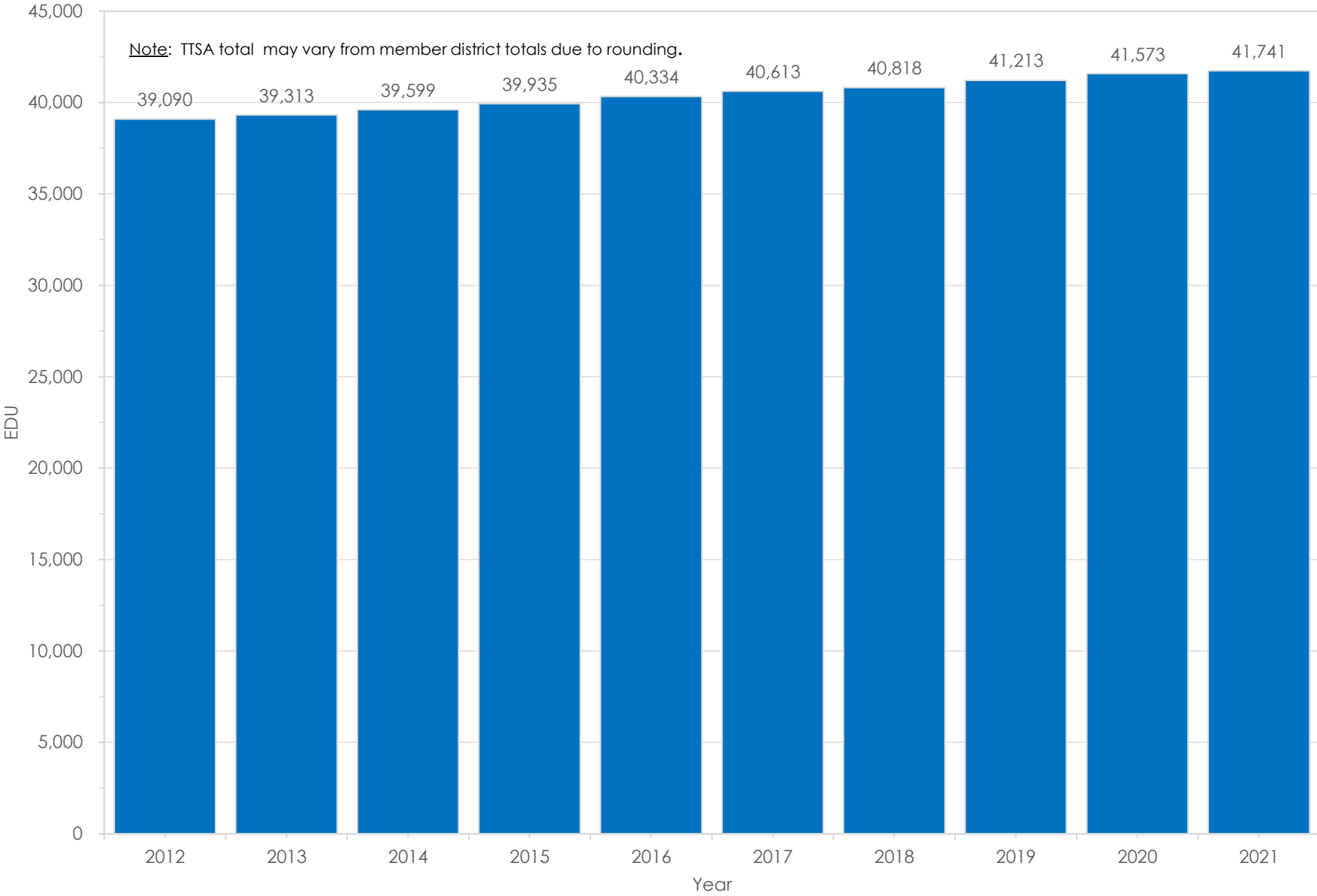
Other EDU Summary



Current EDU Summary By Member District



Historical TTSA EDU Summary





TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: VI-2
Subject: General Manager Report

Continuing Projects/Work

- Management and staff continued to investigate options to become more efficient.
- Management and staff continued implementation of the new software programs.
- Management and staff continued progress on CIP projects.
- Management and staff continued leadership training.

Past Month Projects/Work

- The Agency continues to be open to the public.
- Staff and public are required to wear face coverings indoors in accordance with the Public Health Department of Nevada County.
- All staff have transitioned to working on site.
- Agency recruitment status:
 - Maintenance Mechanic I/II/III - In the recruitment phase.
 - WWTP Operator OIT/I/II/III - In the interview phase.
- Management and staff prepared preliminary operational plan should the Agency and or staff be subject to fire evacuation orders.
- The leadership team members completed their emergentics profile.
- Management approved Change Order No. 1 for the 2021 Asphalt Sealing project (attached).
- Management approved Change Order No. 3 for the 2020 Digital Scanning of Sewer Lines project (attached).
- There was another graffiti occurrence at the Agency (pictures attached). The local police were notified of the incident.

Review Tracking

Submitted By: 
LaRue Griffin
General Manager

TAHOE-TRUCKEE SANITATION AGENCY

A Public Agency
13720 Butterfield Drive
TRUCKEE, CALIFORNIA 96161
(530) 587-2525 • FAX (530) 587-5840

Directors

Dale Cox: President
Dan Wilkins: Vice President
David Smelser
Blake Tresan
S. Lane Lewis

General Manager

LaRue Griffin



CONTRACT MODIFICATION NO. 1 (Change Order)

The following additions, deletions or revisions to the Contract Documents for the 2021 Asphalt Sealing Project by and between the Tahoe-Truckee Sanitation Agency and Blacktop Sealing & Striping, Inc. dated May 24, 2021 have been ordered and authorized:

ITEM	DESCRIPTION	COMPENSATION BASIS	COST
1	Reduction in the Linear Feet (L.F.) of cracks that were routed from 3,400 L.F. to 3,317 L.F. at a cost of \$0.78 per L.F. $((3,400 - 3,317)L.F.) * (\$0.78/L.F.)$.	L.F.	(\$64.74)
Total Cost for Item 1			(\$64.74)

ORIGINAL CONTRACT AMOUNT: \$97,500.00
CONTRACT MODIFICATION NO.1 AMOUNT: (\$64.74)
REVISED CONTRACT AMOUNT: \$97,435.26

CONTRACT TIME ADJUSTMENT: None

All terms and conditions stipulated in the Contract Documents for the 2021 Asphalt Sealing Project by and between the Tahoe-Truckee Sanitation Agency and Blacktop Sealing & Striping, Inc. dated May 24, 2021, are incorporated herein, except as provided in approved Contract Modifications.

ACCEPTED BY:
Blacktop Sealing & Striping, Inc.

9/2/21
Date

APPROVED BY:
Tahoe-Truckee Sanitation Agency

9/7/21
Date



TAHOE-TRUCKEE SANITATION AGENCY

A Public Agency
 13720 Butterfield Drive
 TRUCKEE, CALIFORNIA 96161
 (530) 587-2525 • FAX (530) 587-5840

Directors

Dale Cox: President
Dan Wilkins: Vice President
David Smelser
Blake Tresan
S. Lane Lewis
General Manager
LaRue Griffin

CONTRACT MODIFICATION NO. 3
(Change Order)

The following additions, deletions or revisions to the Contract Documents for the 2020 Digital Scanning of Sewer Lines by and between the Tahoe-Truckee Sanitation Agency and Pipe and Plant Solutions, Inc. dated August 18th, 2020 have been ordered and authorized:

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	COST
1	Reduce total length scanned from 30,200.00 Lineal Feet to 28,940 Lineal Feet (a decrease of 1,260 Lineal Feet).	(1,260)	Lineal Feet	\$2.61	(\$3,288.60)
2	Reduce integration of data collection from scanning of sewer lines importable to Geographic Information System (GIS) software from 30,200 Lineal Feet to 28,940 Lineal Feet (a decrease of 1,260 Lineal Feet).	(1,260)	Lineal Feet	\$0.25	(\$315.00)
Total Cost for Items 1 and 2					(\$3,603.60)

ORIGINAL CONTRACT AMOUNT:	\$86,372.00
CONTRACT MODIFICATION NO. 1 AMOUNT:	(\$276.56)
CONTRACT MODIFICATION NO. 2 AMOUNT:	\$0.00
CONTRACT MODIFICATION NO. 3 AMOUNT:	(\$3,603.60)
REVISED CONTRACT AMOUNT:	\$82,491.84

CONTRACT TIME ADJUSTMENT: **None.**

All terms and conditions stipulated in the Contract Documents for the 2020 Digital Scanning of Sewer Lines by and between the Tahoe-Truckee Sanitation Agency and Pipe and Plant Solutions, Inc. dated August 18th, 2020 are incorporated herein, except as provided in approved Contract Modifications.

ACCEPTED BY: _____	09/02/2021
Pipe and Plant Solutions, Inc.	Date
APPROVED BY: _____	9/7/21
Tahoe-Truckee Sanitation Agency	Date



Repeated graffiti on rock at the intersection of Butterfield Drive and Joerger Drive



Graffiti on T-TSA Business Plan box at the intersection of Butterfield Drive and Joerger Drive



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: VII
Subject: Board of Director Comment

Background

Opportunity for directors to ask questions for clarification, make brief announcements and reports, provide information to staff, request staff to report back on a matter, or direct staff to place a matter on a subsequent agenda.



TAHOE-TRUCKEE SANITATION AGENCY

MEMORANDUM

Date: September 15, 2021
To: Board of Directors
From: LaRue Griffin, General Manager
Item: VIII
Subject: Closed Session

1. Conference with General Manager, as Agency real property negotiator, concerning price and terms of payment relating to potential to real property exchange with Truckee Tahoe Airport District concerning Nevada County APN 019-440-81, APN 049-040-24 and APN 049-040-25 pursuant to Government Code Section 54956.8.
2. Closed session for public employee performance evaluation of the General Manager position.