



Willows City Council Regular Meeting

May 25, 2021
Willows City Hall
7:00 p.m.

City Council
Larry Domenighini, Mayor
Gary Hansen, Vice Mayor
Kerri Warren, Council Member
Joe Flesher, Council Member
Jeff Williams, Council Member

Interim City Manager
Wayne Peabody

City Clerk
Tara Rustenhoven

201 North Lassen Street
Willows, CA 95988
(530) 934-7041

Agenda

1. **CALL TO ORDER- 7:00 p.m.**
2. **PLEDGE OF ALLEGIANCE**
3. **ROLL CALL**
4. **PUBLIC COMMENT/WRITTEN COMMUNICATIONS**

a. **Public Comments:**

Members of the public wishing to address the Council on any item(s) not on the agenda may do so at this time when recognized by the Mayor/Vice Mayor; however, no formal action will be taken unless a majority consensus of the Council directs staff to place the item on a future agenda. Public is advised to limit discussion to one presentation per individual. While not required, please state your name and address for the record. (Oral communications will be limited to three minutes)

5. **CONSENT AGENDA**

Consent items are considered to be routine by the City Council and will be enacted in one motion. There will be no separate discussion on these items unless a Council Member requests, in which event the item will be removed from the consent agenda. It is recommended that the Council:

- a. Approval of general checking, payroll & direct deposit check registers Z44884-Z44913, 38879-38892, 051151-051174.
- b. Approval of minutes of the Regular City Council Meeting held on April 13, 2021 as amended.
- c. Approval of minutes of the Regular City Council Meeting held on May 11, 2021.
- d. Consider approval of the General Plan Annual Progress Report (APR) and direct staff to forward to the Governor's Office of Planning and Research and the State Department of Housing and Community Development, as required by Government Code Section § 65400(b).

Comments from the public are welcome. The Mayor will allow an opportunity for comments related to Public Hearings or any item on the agenda. Please limit comments to three minutes per topic, and one comment per person per topic. Once comments conclude, please allow the Council the opportunity to continue its consideration of the item without interruption.

6. REGULAR BUSINESS AGENDA/ITEMS REQUIRING COUNCIL ACTION

- a. By motion, authorize the Interim City Manager to negotiate and execute an agreement with NEXGEN Utility Management to provide consultant services to perform condition assessments of five sewer collection system lift stations and major process equipment at the Willows Wastewater Treatment Plant.
- b. By motion, adopt a resolution entitled; **ANNUAL RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WILLOWS CONSENTING TO THE EXTENSION OF SERVICE CHARGES IMPOSED ON IMPROVED REAL PROPERTY WITHIN THE INCORPORATED AREA OF THE CITY OF WILLOWS FOR FISCAL YEAR 2021-2022 FOR THE USE AND/OR ABILITY TO USE THE GLENN COUNTY SOLID WASTE SYSTEM.**
- c. Award 2021 Weed Abatement Contractor to Tony Tapia Construction.
- d. Discuss and provide guidance to Staff for the Audit of the Sewer Enterprise Fund.

7. COUNCIL/ STAFF REPORTS/COMMENTS

- a. Staff Reports/Comments:
- b. Council Reports/Comments:

8. CLOSED SESSION

a. PUBLIC COMMENT: Pursuant to Government Code Section §54954.3, the public will have an opportunity to directly address the legislative body on the item below prior to the Council convening into closed session. Public Comments are generally restricted to three minutes.

b. CONFERENCE WITH LEGAL COUNCIL-ANTICIPATED LITIGATION

Significant exposure to litigation pursuant to §54956.9 (b)

Number of Cases: One (1)

c. CONFERENCE WITH LABOR NEGOTIATORS (§54957.6)

Agency designated representatives:

David Ritchie: City Attorney

Interim City Manager: Wayne Peabody

Employee Organization:

United Public Employees of California,
Local 792 (LIUNA / AFL-CIO)

Willows Public Employees Association

9. ADJOURNMENT

This agenda was posted on May 20, 2021



Tara Rustenhoven, City Clerk

A complete agenda packet, including staff reports and back-up information, is available for public inspection during normal work hours at City Hall or the Willows Public Library at 201 North Lassen Street in Willows or on the City's website at www.cityofwillows.org.

In compliance with the Americans with Disabilities Act, the City of Willows will make available to members of the public any special assistance necessary to participate in this meeting. If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132). The public should contact the City Clerk's office at 934-7041 to make such a request. Notification 72 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

The City of Willows is an Equal Opportunity Provider



CONSENT AGENDA



PERIOD

05/06/2021 TO 05/18/2021

Payroll Direct Deposit Z44884 TO Z44913

General Checking 38879 TO 38892

Check Register 051151 TO 051174

APPROVAL DATE 05/25/2021

APPROVED _____

REPORT.: 05/11/21
RUN....: 05/11/21 Time: 10:30
Run By.: Katie Childress

CITY OF WILLOWS
Check Register

PAGE: 001
ID #: PRCR
CTL.: WIL

Check Number	Date	Payroll Date	**Employee** Num Name	Actual Period	Fiscal Period	Gross Amount	Tax Amount	Deduction Amount	Check Amount
Z44884	05/15/21	05/09/21	WIL02 WILLIAMS, JEFF	05-21	11-21	250.00			
Z44885	05/15/21	05/31/21	BOB00 BOBADILLA, PEDRO D	05-21	11-21	50.00			
Z44886	05/15/21	05/09/21	CHI00 CHILDRESS, KATIE LEEANN	05-21	11-21	1886.88			
Z44887	05/15/21	05/31/21	GRI02 GRIFFITH, ROBERT	05-21	11-21	50.00			
Z44888	05/15/21	05/31/21	HAN06 HANSEN, JOSE	05-21	11-21	50.00			
Z44889	05/15/21	05/31/21	MUL00 MULLER, HILGARD N	05-21	11-21	50.00			
Z44890	05/15/21	05/09/21	RUS01 RUSTENHOVEN, TARA L	05-21	11-21	1935.79			
Z44891	05/15/21	05/31/21	WOO00 WOODS, CANDIS K	05-21	11-21	50.00			
Z44892	05/15/21	05/09/21	EH000 EHORN, MARIA ANNETTE	05-21	11-21	1984.75			
Z44893	05/15/21	05/09/21	BIA00 BIANCHINI, ANN L	05-21	11-21	56.00			
Z44894	05/15/21	05/09/21	BOW00 BOWERS, LINDA S	05-21	11-21	252.00			
Z44895	05/15/21	05/09/21	BRI00 BRIONES, BRENDA VALENZU	05-21	11-21	280.00			
Z44896	05/15/21	05/09/21	DUN00 DUNCAN, ROSE A	05-21	11-21	1430.77			
Z44897	05/15/21	05/09/21	OLI00 OLIVER, LINDA F	05-21	11-21	189.00			
Z44898	05/15/21	05/09/21	RAN00 RANDOLPH, ABIGAIL S	05-21	11-21	364.00			
Z44899	05/15/21	05/09/21	SIL00 SILVA, EMILY M	05-21	11-21	119.00			
Z44900	05/15/21	05/09/21	SPE02 SPENCE, KYLIEGH C	05-21	11-21	364.00			
Z44901	05/15/21	05/09/21	VAR00 Vargas, Giovanni	05-21	11-21	518.00			
Z44902	05/15/21	05/09/21	HUT04 HUTSON, KRISTINA RENEE	05-21	11-21	663.78			
Z44903	05/15/21	05/09/21	ABO00 ABOLD, STEVEN B	05-21	11-21	2200.19			
Z44904	05/15/21	05/09/21	MCM00 MCMAHON, SHARON M	05-21	11-21	188.16			
Z44905	05/15/21	05/09/21	SEN00 SENGMAN, SITXAY	05-21	11-21	768.00			
Z44906	05/15/21	05/09/21	VAS01 VASQUEZ, PEDRO CEASAR	05-21	11-21	2168.76			
Z44907	05/15/21	05/09/21	ENO00 ENOS, KYLE	05-21	11-21	3419.34			
Z44908	05/15/21	05/09/21	PEA04 PEABODY, ROBERT WAYNE	05-21	11-21	4400.54			
Z44910	05/15/21	05/09/21	CAR03 CARLSON, JOSHUA D	05-21	11-21	1642.63			
Z44911	05/15/21	05/09/21	MIN00 MINGS, MICHAEL E	05-21	11-21	1698.92			
Z44912	05/15/21	05/09/21	PFY00 PFYL, NATISA N	05-21	11-21	3267.76			
Z44913	05/15/21	05/09/21	STE05 STEPHENS, KYRA	05-21	11-21	2196.48			
						32494.75			

REPORT.: 05/06/21
RUN ON.: 05/06/21 Time: 16:47
RUN BY.: Katie Childress

CITY OF WILLOWS

PAGE: 001
ID #: SPVR
CTL.: WIL

Vendor Check Register Print

Number	Date	Vendor/Organization	Invoice Id	Date	Description/Reference	Period	Amount	Amount Paid
38879	05/06/21	AFL01 AFLAC- FLEX ONE	C10430	04/30/21	OTHER - AFLAC	05-21	755.91	755.91
38880	05/06/21	CYP00 CYPRESS ANCILLARY BENEFITS	C10430	04/30/21	DENTAL\VISION	05-21	1212.44	1212.44
38881	05/06/21	GOL01 GOLDEN STATE RISK MANAGEME	C10430	04/30/21	MED/DENTAL/VISION	05-21	9951.00	9951.00
38882	05/06/21	UNI17 UNITED PUBLIC EMPLOYEES AS	C10430	04/30/21	PUBLIC SAFETY DUES	05-21	179.60	179.60
38883	05/06/21	WIL01 WILLOWS EMPLOYEES ASSOC.	C10430	04/30/21	EMPLOYEES ASSOC.DUES	05-21	15.00	15.00
TOTAL DISBURSED...							12113.95	12113.95

REFOR: 05/11/21
RUN ON.: 05/11/21 Time: 11:18
RUN BY.: Katie Childress

CHIL OF WILLOWS

PAGE: 001
ID #: SPVR
CTL.: WIL

Vendor Check Register Print

Number	Date	Vendor/Organization	Invoice Id	Date	Description/Reference	Period	Amount	Amount Paid
38884	05/11/21	EDD01 EMPLOYMENT DEVELOP.DEPT.	C10511	05/11/21	STATE INCOME TAX	05-21	769.11	769.11
38885	05/11/21	EDD02 EMPLOYMENT DEVELOPMENT DEP	C10511	05/11/21	SDI	05-21	375.45	375.45
38886	05/11/21	EDD03 EMPLOYMENT DEVELOPMENT DEP	C10511	05/11/21	SUI	05-21	707.00	707.00
38887	05/11/21	GOL01 GOLDEN STATE RISK MANAGEME	C10511	05/11/21	ADDENDUM CHECK,	05-21	3439.00	3439.00
38888	05/11/21	ICM01 ICMA RETIREMENT TRUST 457	C10511	05/11/21	DEFERRED COMP - ICMA	05-21	411.11	411.11
38889	05/11/21	NAT00 NATIONWIDE RETIREMENT SOLU	C10511	05/11/21	USCM DEF. COMP.	05-21	784.92	784.92
38890	05/11/21	PER01 P.E.R.S.	C10511	05/11/21	PERS PAYROLL REMITTANCE	05-21	4568.18	4568.18
38891	05/11/21	UMP00 UMPQUA BANK	C10511	05/11/21	DIRECT DEPOSIT	05-21	22554.65	22554.65
38892	05/11/21	UMP01 UMPQUA BANK - MYTAXPAYER	C10511	05/11/21	FEDERAL INCOME TAX	05-21	2320.48	
38892	05/11/21	UMP01 UMPQUA BANK - MYTAXPAYER	1C10511	05/11/21	FICA	05-21	3910.64	
38892	05/11/21	UMP01 UMPQUA BANK - MYTAXPAYER	2C10511	05/11/21	MEDICARE	05-21	914.62	7145.74
TOTAL DISBURSED...							40755.16	40755.16

REPORT.: May 18 21 Tuesday
 RUN....: May 18 21 Time: 09:02
 Run By.: Katie Childress

CITY OF WILLOWS
 Automatic Check Listing/Update
 Control Date.: 05/18/21 Cash Account No.: 000 1045

PAGE: 001
 ID #: PY-CL
 CTL.: WIL

		Invoice Date	Actual Period			Discount	Gross	Discount	Net
Invoice No	Description	Due Date	Fiscal Tm	G/L	Account No	Amount	Amount	Amount	Amount
Check #.: 051151 Check Date.: 05/18/21		Vendor I.D.: AIR00 (AIRGAS NCN)							
911276158-	OXYGEN	04/30/21	05-21			115.05	.00	115.05	
		05/18/21	11-21						
997960016-	RENT CYL MED XS OXYGEN	04/30/21	05-21			132.00	.00	132.00	
		05/18/21	11-21						
** Vendor's Subtotal ----->						247.05	.00	247.05	
Check #.: 051152 Check Date.: 05/18/21		Vendor I.D.: AME02 (AMERIPRIDE UNIFORM SVCS.)							
102539492-	CLEANING UNIFORMS	05/11/21	05-21			100.22	.00	100.22	
		05/18/21	11-21						
Check #.: 051153 Check Date.: 05/18/21		Vendor I.D.: BAK06 (BAKER & TAYLOR BOOKS)							
203593746-	New Print Mat. Library	04/28/21	05-21			297.96	.00	297.96	
		05/18/21	11-21						
Check #.: 051154 Check Date.: 05/18/21		Vendor I.D.: BAR01 (BARCELOUX BROTHERS AUTO)							
601959-	BATTERY	05/05/21	05-21	A		170.62	.00	170.62	
		05/18/21	11-21						
602169-	NED/ SEAT AND DIAHRAG	05/07/21	05-21	A		21.00	.00	21.00	
		05/18/21	11-21						
** Vendor's Subtotal ----->						191.62	.00	191.62	
Check #.: 051155 Check Date.: 05/18/21		Vendor I.D.: CLE03 (CLEARWAY ENERGY LLC)							
513721-	SOLAR BILL FOR APRIL	04/16/21	05-21			7029.68	.00	7029.68	
		05/18/21	11-21						
Check #.: 051156 Check Date.: 05/18/21		Vendor I.D.: COR02 (CORBIN WILLITS SYSTEMS)							
00C10430-	Cont.Serv. Finance	04/30/21	05-21	A		700.00	.00	700.00	
		05/18/21	11-21						
00C008151-	Cont.Serv. Finance	08/15/20	05-21	A		424.35	.00	424.35	
		05/18/21	11-21						
00C010151-	Cont.Serv. Finance	10/15/20	05-21	A		424.35	.00	424.35	
		05/18/21	11-21						
** Vendor's Subtotal ----->						1548.70	.00	1548.70	
Check #.: 051157 Check Date.: 05/18/21		Vendor I.D.: COR10 (CORNING LUMBER WILLOWS)							
10514282-	60LBS QUIKRETE READY MIX CONCRETE	05/12/21	05-21			4.27	.00	4.27	
		05/18/21	11-21						
Check #.: 051158 Check Date.: 05/18/21		Vendor I.D.: DEM01 (DEMCO, INC.)							
6944746-	CTN PAPERFOLD AND LABELS	04/29/21	05-21	A		190.15	.00	190.15	
		05/18/21	11-21						
Check #.: 051159 Check Date.: 05/18/21		Vendor I.D.: ENN00 (ENNIS-FLINT INC)							
412711-	WHITE, YELLOW & RED PAINT FOR ROADS	05/05/21	05-21			6872.58	.00	6872.58	
		05/18/21	11-21						
Check #.: 051160 Check Date.: 05/18/21		Vendor I.D.: GAN01 (GANDY-STALEY OIL CO.)							
197893-	REGULAR UNLEADED GAS- PW	04/15/21	05-21	A		1330.88	.00	1330.88	
		05/18/21	11-21						
197894-	DIESEL - PW	04/15/21	05-21	A		694.21	.00	694.21	
		05/18/21	11-21						
C10512-	STATEMENT FOR FIRE DEPT FOR APRIL 2020	04/30/21	05-21	A		267.32	.00	267.32	
		05/18/21	11-21						
** Vendor's Subtotal ----->						2292.41	.00	2292.41	

RUN....: May 18 21 Time: 09:02
Run By.: Katie Childress

Automatic Check Listing/Update
Control Date.: 05/18/21 Cash Account No.: 000 1045

ID #: PY-CL
CTL.: WIL

Invoice	No	Description	Invoice	Actual	Tm	Discount	Gross	Discount	Net	
			Date	Period						
			Due Date	Fiscal		Account	No	Amount	Amount	Amount
Check #.: 051161 Check Date.: 05/18/21			Vendor I.D.: GLE13 (GLENN CO. CLERK-RECORDER)							
C10518-		RECORDING OF SUB OF TRS& FULL RECON HALL	05/18/21	05-21	A			178.00	.00	178.00
			05/18/21	11-21						
Check #.: 051162 Check Date.: 05/18/21			Vendor I.D.: GLE42 (GLENN COUNTY SOLID WASTE)							
365613-		WASTE	05/13/21	05-21				5.00	.00	5.00
			05/18/21	11-21						
Check #.: 051163 Check Date.: 05/18/21			Vendor I.D.: INK01 (THE INKWELL)							
3114-		UPS CHARGE	05/13/21	05-21	A			49.15	.00	49.15
			05/18/21	11-21						
Check #.: 051164 Check Date.: 05/18/21			Vendor I.D.: INT16 (INTERSTATE BATTERY SYSTEM OF REDDING)							
30058937-		#29 HIGH RANGER BATTERY	05/04/21	05-21				280.74	.00	280.74
			05/18/21	11-21						
Check #.: 051165 Check Date.: 05/18/21			Vendor I.D.: JER00 (JEREMY'S PEST STOMPERS)							
54215-		PEST CONTROL FOR MAY 2021	05/04/21	05-21				40.00	.00	40.00
			05/18/21	11-21						
Check #.: 051166 Check Date.: 05/18/21			Vendor I.D.: KNI03 (KNIFE RIVER CONSTRUCTION)							
250640-		WET PATCH AND ENV. FEE	05/05/21	05-21				211.23	.00	211.23
			05/18/21	11-21						
Check #.: 051167 Check Date.: 05/18/21			Vendor I.D.: L&T00 (L & T TOWING)							
46073-		TOYOTA- PICKUP	05/03/21	05-21				125.00	.00	125.00
			05/18/21	11-21						
46074-		ISUZU AMIGO	05/03/21	05-21				125.00	.00	125.00
			05/18/21	11-21						
46075-		SEADOO- WAVERUNNER	05/03/21	05-21				125.00	.00	125.00
			05/18/21	11-21						
46076-		GMC- ENVOY	05/03/21	05-21				125.00	.00	125.00
			05/18/21	11-21						
** Vendor's Subtotal ----->							500.00	.00	500.00	
Check #.: 051168 Check Date.: 05/18/21			Vendor I.D.: NOR18 (NORTHERN CALIF. GLOVES)							
539292-		LATEX GLOVES	05/04/21	05-21				411.85	.00	411.85
			05/18/21	11-21						
Check #.: 051169 Check Date.: 05/18/21			Vendor I.D.: PET00 (MATTHEW PETERSEN)							
C10512-		REPLACEMENT PANTS REIMBURSEMENT	05/06/21	05-21				344.77	.00	344.77
			05/18/21	11-21						
Check #.: 051170 Check Date.: 05/18/21			Vendor I.D.: PGE01 (PG & E)							
C10512-		UTILITY ELECTRIC FOR 1600 S TEHAMA ST	05/07/21	05-21	A			25.46	.00	25.46
			05/18/21	11-21						
Check #.: 051171 Check Date.: 05/18/21			Vendor I.D.: VAL01 (VALLEY ROCK PRODUCTS)							
1146394-		3/4 BASE ROCK	05/05/21	05-21	A			302.38	.00	302.38
			05/18/21	11-21						
Check #.: 051172 Check Date.: 05/18/21			Vendor I.D.: VAL14 (VALLEY TRUCK & TRACTOR CO.)							
1082214-		HYDRAULIC CY AND CYLINDER KIT	05/05/21	05-21				324.69	.00	324.69
			05/18/21	11-21						

RUN....: May 18 21 Time: 09:02
Run By.: Katie Childress

Automatic Check Listing/Update
Control Date.: 05/18/21 Cash Account No.: 000 1045

ID #: PY-CL
CTL.: WIL

Invoice No	Description	Invoice Date	Actual Period	Discount Tm	G/L Account No	Gross Amount	Discount Amount	Net Amount
Check #: 051173 Check Date.: 05/18/21 Vendor I.D.: WILHD (WILLOWS HARDWARE, INC.)								
244848-	BATTERIES	05/11/21	05-21	A		35.36	.00	35.36
		05/18/21	11-21					
252678-	SPRINKLER PARTS FOR PARK	05/12/21	05-21	A		69.93	.00	69.93
		05/18/21	11-21					
257669-	DEAD BOLT FOR REC ROOM	05/13/21	05-21	A		21.44	.00	21.44
		05/18/21	11-21					
** Vendor's Subtotal ----->						126.73	.00	126.73
Check #: 051174 Check Date.: 05/18/21 Vendor I.D.: XYL00 (XYLEM WATER SOLUTIONS U.S.A., INC)								
3556B7094-	PUMP REBUILD FOR PACIFIC LF STATION	04/30/21	05-21			2798.81	.00	2798.81
		05/18/21	11-21					
** Total Checks Paid ----->						24373.45	.00	24373.45



ACTION MINUTES OF THE WILLOWS CITY COUNCIL REGULAR MEETING HELD APRIL 13, 2021

Meeting audio is available at the City of Willows website. This is not a live feature. Audio recordings are posted the succeeding business day following the scheduled City Council Meeting.

Please visit www.cityofwillows.org for free PodBean recordings.

1. Mayor Domenighini called the meeting to order at 7:00 p.m.
2. The meeting opened with the Pledge of Allegiance led by Council Member Jeff Williams.

3. Roll Call:

Council Members Present: Council Members Williams, Flesher, Vice Mayor Hansen, Mayor Domenighini

Council Members Absent: Warren

Staff Present: Interim City Manager Wayne Peabody and City Clerk Tara Rustenhoven

4. Public Comment/ Written Communications: Written Communication from Forrest Sprague regarding the allegation of misconduct by City staff.

5. Consent Agenda:

- a. Approval of general checking, payroll & direct deposit check registers Z44809-Z44836, 38856-38866, 051002-051081.
- b. Approval of minutes of the Regular City Council Meeting held on March 23, 2021.

Action:

Motion: Vice Mayor Hansen/Second: Council Member Flesher

Moved to approve the Consent Agenda as presented above and the following item(s).

The motion passed unanimously 4/0 carried by the following voice vote:

AYES: Williams, Flesher, Vice Mayor Hansen, Mayor Domenighini

NOES:

ABSENT: Warren

ABSTAIN:

Mayor Domenighini went to the Special Meeting.

6. Regular Business:

- a. By motion, adopt a resolution entitled; **RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WILLOWS, STATE OF CALIFORNIA, ESTABLISHING A ONE-YEAR PILOT SIDEWALK REPAIR PROGRAM AND ALLOCATING ONE-TIME FUNDING IN THE AMOUNT OF \$20,000 FROM GAS TAX, SB-1, GENERAL FUND, OR OTHER DISCRETIONARY FUNDING SOURCES.**

No action was taken on the above Resolution. Council gave staff direction.

- b. By motion, adopt a resolution entitled; **RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WILLOWS, STATE OF CALIFORNIA, DECLARING CERTAIN PUBLIC WORKS PROPERTY TO BE SURPLUS AND AUTHORIZING THE SALE OR DISPOSAL OF SAME PURSUANT TO THE WILLOWS MUNICIPAL CODE.**

Action:

Motion: Council Member Williams/Second: Council Member Flesher

*Moved to adopt a resolution entitled; **RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WILLOWS, STATE OF CALIFORNIA, DECLARING CERTAIN PUBLIC WORKS PROPERTY TO BE SURPLUS AND AUTHORIZING THE SALE OR DISPOSAL OF SAME PURSUANT TO THE WILLOWS MUNICIPAL CODE.***

The motion passed unanimously 4/0 carried by the following roll call vote:

AYES: Williams, Flesher, Vice Mayor Hansen, Mayor Domenighini

NOES:

ABSENT: Warren

ABSTAIN:

7. Council/Staff Reports/Comments:

a. Staff Reports/Comments:

- City Attorney gave an update on the Sewer Fund Audit with the State Controllers Office.
- Due to multiple complaints, the Sheriff's Office is going to increase patrol in certain areas around town.
- Parks are getting busy. We are happy to have a part-time employee back in the Rec Department.
- There have been some complaints about some of the parks. We just want to remind everyone that the parks get water from the canal. The water is starting to come back up and we will be able to get the parks to looking green again.
- Weed abatement will be coming soon.

b. City Council Reports Comments: Council gave comments/reports on activities and various meetings they attended.

8. Closed Session:

a. PUBLIC COMMENT: Pursuant to Government Code Section §54954.3, the public will have an opportunity to directly address the legislative body on the item below prior to the Council convening into closed session. Public Comments are generally restricted to three minutes.

b. PUBLIC EMPLOYEE APPOINTMENT (CA Gov. Code § 54957) Title: City Manager, Finance Manager, Community Services Director

c. CONFERENCE WITH LEGAL COUNCIL-ANTICIPATED LITIGATION

Significant exposure to litigation pursuant to paragraph (2) of subdivision (d) of Gov. Code Section §54956.9:

Number of Cases: 3

Council recessed into closed session at 8:55 p.m.

Council reconvened into open session at 9:58 p.m.

Announcement of any action taken in closed session:

Mayor Domenighini reported no reportable action. Direction was given to staff.

9. Adjournment:

The Meeting was adjourned at 9:59 p.m.

Dated: April 15, 2021

Tara Rustenhoven, City Clerk



ACTION MINUTES OF THE WILLOWS CITY COUNCIL REGULAR MEETING HELD MAY 11, 2021

Meeting audio is available at the City of Willows website. This is not a live feature. Audio recordings are posted the succeeding business day following the scheduled City Council Meeting.

Please visit www.cityofwillows.org for free PodBean recordings.

1. Mayor Domenighini called the meeting to order at 7:00 p.m.
2. The meeting opened with the Pledge of Allegiance led by Council Member Flesher.

3. Roll Call:

Council Members Present: Council Members Williams, Flesher, Vice Mayor Hansen, Mayor Domenighini

Council Members Absent: Council Member Warren

Staff Present: Interim City Manager Wayne Peabody, City Attorney David Ritchie, and City Clerk Tara Rustenhoven

4. Ceremonial Matters (Proclamations, Recognitions, Awards):

- a. Reading of a Memorial Day Proclamation

5. Public Comment/ Written Communications: Received written communication from Forrest Sprague regarding the sewer fund. This letter will be attached to the minutes.

Roberta Asbury wanted an update regarding the sewer fund audit.

Doug Ross gave his opinion on what he believes the community wants from the audit.

6. Consent Agenda:

- a. Approval of general checking, payroll & direct deposit check registers Z44862-Z44883, 38873-38878, 051115-051150.
- b. Approval of minutes of the Special City Council Meeting held on April 5, 2021.
- c. Approval of minutes of the Regular City Council Meeting held on April 27, 2021.

Action:

Motion: Vice Mayor Hansen/Second: Council Member Flesher

Moved to approve the Consent Agenda as presented above and the following item(s).

The motion passed unanimously 4/0 carried by the following voice vote:

AYES: Williams, Flesher, Vice Mayor Hansen, Mayor Domenighini

NOES:

ABSENT: Warren

ABSTAIN:

7. Regular Business:

- a. Review the City of Willows WMC, regarding the Maintenance Responsibilities for Sidewalks.

Written Communication received from the following:

- Lisa Davis regarding Revisions to the City of Willows MC on Maintenance Responsibilities for Sidewalks.
- Richard M. Thomas regarding Sidewalks-Proposed Ordinance for Owner Maintenance.
- Forrest Sprague regarding Sidewalk Repair Ordinance
- S Thidsy regarding Sidewalk Repair

Letters will be attached to the Minutes.

Public Comment are as follows:

- Resident on N Plumas St, Scott Pedro is concerned about the sidewalks previously damaged by City Trees.
- Resident on S Marshall Ave., Tom Brandon is concerned about 5 trees that could possibly be removed and is concerned about having to replace the sidewalk in front of his house.
- Resident of Willows Nate Sawyer wanted to get more information and clarification on the liabilities for the landowner.
- Tammy Allen, business owner of 11 W. Wood St, concerned about being liable if pedestrians fall in front of her business.
- Business owner Jason Grant is asking council to come up with another solution to fix the sidewalks.
- Business owner Rae Ann Titus is concerned for the liability of homeowners insurance increasing and rent going up for renters. She also wanted to know who is reliable for curb and gutter, how would property owners be notified? Would it be like the weed abatement.
- Resident of Willows Shirly Benningfield, asked if Public Works could in the time being mark the sidewalks with yellow paint like they did in the past.
- Resident on Glennwood Ln, Zack Lopeteguy is concerned about his sidewalks and wonders if it is a city or Calwater issue.

By consensus the council will table the ordinance and revisit this item and bring back at a future meeting in August.

8. Council/Staff Reports/Comments:

a. Staff Reports/Comments:

- Recreation is starting back up and programs will be starting soon.
- Please drive by and see 141 n Crawford. It has been cleaned up after a house fire.
- Vice Mayor Hansen wanted to congratulate Matthew Peterson who started with the Willows Fire Department.

b. City Council Reports Comments: Council gave comments/reports on activities and various meetings they attended.

Council Member Williams asked to place on the next agenda to discuss asking the State Controllers office to move forward on the audit for the sewer enterprise funds.

11. Closed Session:

a. PUBLIC COMMENT: Pursuant to Government Code Section §54954.3, the public will have an opportunity to directly address the legislative body on the item below prior to the Council convening into closed session.

Public Comments are generally restricted to three minutes.

b. CONFERENCE WITH LEGAL COUNCIL-ANTICIPATED LITIGATION

Significant exposure to litigation pursuant to §54956.9 (b)

Number of Cases: Two (2)

c. PUBLIC EMPLOYEE APPOINTMENT (CA Gov. Code §54957) Title: City Manager

d. CONFERENCE WITH LABOR NEGOTIATORS (§54957.6)

Agency designated representatives:

David Ritchie: City Attorney

Interim City Manager: Wayne Peabody

Employee Organization: United Public Employees of California,
Local 792 (LIUNA / AFL-CIO)

Council recessed into closed session at 8:51 p.m.

Council reconvened into open session at 9:45 p.m.

Announcement of any action taken in closed session:

Mayor Domenighini reported no reportable action and direction was given to staff.

10. Adjournment:

The Meeting was adjourned at 9:46 p.m.

Dated: May 19, 2021

Tara Rustenhoven, City Clerk

Tara Rustenhoven

From: Lisa Davis <lisadavisrealty@outlook.com>
Sent: Tuesday, May 11, 2021 8:24 AM
To: Tara Rustenhoven; Wayne Peabody; Gary Hansen; Larry Domenighini; Kerri Warren; Joe Flesher; jeff williams
Subject: Revisions to the City of Willows Municipal code regarding maintenance Responsibilities for Sidewalks

Good Evening Mayor Domenighini, Ms. Rustenhoven and Council Members-

I would like to request that my letter be entered into the Minutes of tonights Council Meeting. Unfortunately, I am unable to attend this evening.

I would like to express my EXTREME displeasure with what is being proposed with regard to the City Sidewalk situation. I do agree that many of the City Sidewalks are in disrepair, and are certainly a potential Liability. However, to put the cost of repair and liability on the landowner is unfair to say the least. The disrepair of most of the city sidewalks have been damaged by City Owned trees! To make the landowners responsible for damage caused by City Owned trees is NOT fair. I manage many Rental Properties within the City Limits and have had issues with City Owned trees and sidewalk damage in the past. It has previously been shown to be a very one sided situation. I have in the past, tried to get City owned trees removed because of concerns over sidewalk damage. I was then told that the cost to remove these trees would be the responsibility of the Property Owner. At that time, my owner could not afford to remove the tree. (incidentally the City also has a list of "acceptable replacement trees")

Why were species of trees known to have surface roots, planted in the first place!) When the same tree started causing intrusion into the City Sewer main, the City removed the tree, did NOT replace it, and did not repair the damage to the sidewalk. The City wants their cake and eat it too, it appears.

City sidewalks are OWNED BY THE CITY. My Property Owners have already been hit extremely hard during the COVID nightmare and many are already considering selling their rentals because of the loss of control in their investments. Just from the rental property viewpoint, adding yet another cost to my owners could very well tip the scales to force them to sell. Willows already has a rental housing shortage, and this ordinance will surely cause even MORE of a shortage. Although I believe something needs to be done.... Forcing landowners to foot the bill is NOT the answer. Please reconsider this option.

Respectfully Submitted-

Lisa Davis

Davis Realty & Associates
Lisa C. Davis
BRE #01747600
211 W. Wood St.

Willows, California
95988
(530) 370-4417

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MAY 11, 2021

CITY OF WILLOWS

MAYOR DOMENIGHINI and COUNCIL MEMBERS

RE: SIDEWALKS - PROPOSED ORDINANCE FOR
OWNER MAINTENANCE.

COUNCIL MEMBERS:

Simply Put - NO.

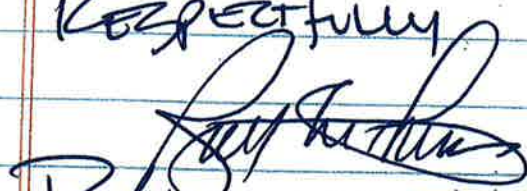
REASONS:

1. IS IT LEGAL TO REQUIRE AN INDIVIDUAL OR BUSINESS TO MAINTAIN, REPAIR OR REPLACE IMPROVEMENTS ON LAND THEY DO NOT OWN?
2. IS IT LEGAL TO ATTEMPT TO PUT LIABILITY ONTO AN INDIVIDUAL OR BUSINESS FOR INJURIES ON PROPERTY THEY DO NOT OWN?
3. FAIRNESS, WOULD NOT THE CITY FIRST REPAIR, REPLACE ALL SUB-STANDARD SIDEWALKS SO AS TO NOT OVER BURDEN A FEW LAND OWNERS WHOSE SIDEWALKS ARE IN NEED?

Continued

4. OVER BURDEN ON THE CITIZENS AND BUSINESS COMMUNITY IS A DETERENT TO GROWTH.

IN SUMMARY, THE CITY IS AND HAS BEEN IN FINANCIAL DIFFICULTY FOR MANY YEARS. I SEE THIS AS A FAILURE OF THE LEADERSHIP TO PURSUE REVENUE GENERATING BUSINESS AND COMMERCIAL ECONOMIC DEVELOPMENT. RETAIL SALES TAX LEAKAGE TO NEIGHBORING COMMUNITIES IS HUGE. I WOULD ENCOURAGE YOUR EFFORTS TO BOLSTER SALES TAX REVENUE GENERATING BUSINESSES, AND LESS ON STIFLING GROWTH WITH EXCESS REGULATION AND FEES/TAXATION, SUCH AS THIS PROPOSED ORDINANCE.

Respectfully


RICHARD M. THOMAS
COMMERCIAL AND RESIDENTIAL LANDOWNER
WITHIN THE CITY OF WILLOWS.
530.514.0754
RMTHOMAS351@gmail.com

FORREST J. SPRAGUE Attachment to minutes

801 Applewood Way Willows, CA 95988
Ph: 530-514-8700 Email: forsprague@aol.com

May 11, 2021

City of Willows
201 N. Lassen St
Willows, CA 95988
ATTN: Tara Rustenhoven



REF: Sidewalk Repair Ordinance

Dear Tara:

Please provide the City Council members with this letter before tonight's meeting and please ensure that it becomes attached to the Minutes of the meeting as part of the Public Record.

Dear Mayor Domenighini and Council Members:

As you know, the last two attempts to raise sewer fees were unsuccessful. You also know that the past Finance Director has admitted to some misuse of the Sewer Fund and subsequently he resigned. Now the City should no longer siphon the Sewer Fund for General Fund services. Currently staff at the State Controller's Office is at least considering a review of the City's accounting practices regarding the Sewer Fund revenue.

Last year, the city-sponsored Measure H, intended to increase the local sales tax to fill the City's coffers, failed to pass. Currently the Fair Political Practices Commission is investigating whether city staff misused city-owned property to unlawfully urge a "YES on H" vote for the measure. It also appears that both City Manager Peabody and City Attorney Ritchie may have allowed violations of state law, FPPC regulations, and the City's Protocol Manual that clearly prohibit the unlawful use of city property, equipment and vehicles to promote Measure H.

Also as you all know, over the last decade or so, city staff has deferred the unfunded liability owed to the City's PERS retirement account. Now the City will sell more than \$10 million in Municipal Bonds to cover that debt. Of course, the interest payment connected to those Bonds will be paid by the Willows taxpayers.

Presently, it is believed that outside accountants and attorneys are calculating the total amount needed to get the Sewer Fund out of the red ink caused by years of mismanagement by city staff. The records show that for nearly 20 years, city staff misused the Sewer Fund revenue to unlawfully pay for city services that should have been paid from the General Fund. The proposed remedy to this problem is to sell millions of dollars worth of Certificates of Participation to get the Sewer Fund back into the black.

Between the years of 2008 and 2010, the City increased its Impact Fees on building permits. These fees are paid by the property owners when they buy or build a new house, remodel an existing home or build a new commercial facility. Those fees are to be spent on street, sewer, city park and fire department improvements, to name a few. Current records show that nearly \$1.3 million have been collected for those items. *But who knows where the money has gone?*

State law requires that a public report itemizing the amounts and use of those accounts be presented to the City Council every year at the end of the City's fiscal year and during budget hearings. Twice, I have asked the City Attorney for copies of those required annual reports. So far he has NOT offered an explanation for not releasing the reports. Instead, he says that the City's inability to find the reports does not mean that they don't exist. Really?

To my point: It is becoming increasingly evident to many that the City of Willows is most likely near financial insolvency, if not even on the brink of bankruptcy.

And just when people thought matters could not become worse, to make up for decades of fiscal mismanagement by city staff, some of which was done under his watch, Interim City Manager Wayne Peabody has recently unveiled his devious scheme to shift his and the City's fiduciary responsibilities onto the backs of unsuspecting property owners...*your constituents*.

To justify his proposal, Mr. Peabody cites from a 110 year-old Street and Highway Code section that was created when most of the sidewalks in Willows, if they even existed, were made of wood. I am sure the legislative intent back then was to give cities some recourse in the event of willful or neglectful damages to city walkways that may have caused a public safety hazard but were made by property owners. Just as it was then, today if an activity by a property owner causes damage to City sidewalks, the owner should be held responsible.

But just as Mr. Peabody's Agenda Item narrative says, some sidewalks "...date back to the early 1900s." He also admits "... [city] tree roots and age have caused...sidewalks...to fall into a state of disrepair." And he refers to some sidewalks as being "defective."

So the sidewalks that Mr. Peabody wants to replace at the property owner's expense were in all likelihood NOT damaged by the current property owners. Instead, the damages and defects he refers to were likely caused by city tree roots, expansive soils, poor construction standards of the day, or careless workmen constructing the original buildings on the property.

Regardless of the perceived cause of the present condition of the city-owned sidewalk in front of a piece of property, unless the current owner is known to be responsible for the damage, they should not be victimized and penalized for simply owning the property today.

Depending upon the amount of work the City might demand, the cost to the property owner could reach the tens-of-thousands per parcel. Moreover, if a property owner is found liable for another person's injury due to defective city-owned sidewalks, the cost of owner's general liability insurance could increase substantially. Some insurance companies could even drop their coverage to the property owner altogether to avoid further liability.

Last, if you review the index of the municipal code sections at the top left corner of the first page of the Attachment 2, you'll see the reference to "Cost assessment proceedings." However, in the body of the DRAFT there is no code section with that title. The Council and the public should know the language within that section before the ordinance is considered.

Therefore, I strongly urge the entire City Council to reject Interim City Manager Peabody's draconian and unwarranted Ordinance and Municipal Code proposal.

Regards,

FORREST J. SPRAGUE

Tara Rustenhoven

From: S Thidsy <thidsyfamily@hotmail.com>
Sent: Tuesday, May 11, 2021 3:23 PM
To: trustwnhoven@cityofwillows.org
Subject: Sidewalk repair

I am unable to attend tonight meeting due to being sick. I am against the suggested ordinance in regards to the sidewalk. A lot of the sidewalk has been damaged for a long time. Property owners can't always afford these extra bills.

May 25, 2021

AGENDA ITEM

TO: Honorable Mayor Domenighini and Members of City Council

FROM: Karen Mantele, Principal Planner

SUBJECT: General Plan Annual Progress Report (APR) A review and discussion regarding the City of Willows General Plan Year End Review for period from January 1, 2020 to December 31, 2020

Project Description:

The preparation of a General Plan Annual Progress Report (APR) per Government Code Section 65400, is an annual requirement to report on the efforts the City has undertaken within the past year with implementation of its General Plan programs and policies, specifically in the removal of governmental constraints to the maintenance, improvement, and development of housing, and the status of implementation of these programs. This report satisfies the code requirement.

Introduction:

The General Plan addresses the future vision of community growth in the jurisdiction, such as its physical development, general locations, appropriate mix, timing, and extent of land uses and supporting infrastructure.

The City of Willows adopted its General Plan in 1981, This Plan was comprised of elements from the County of Glenn, which some elements date back to 1974. The City's Plan includes the following elements: *Land Use, Open Space, Conservation, Circulation, Safety, Seismic, Noise, Scenic Highways, and Housing*. General Plans that have not been revised within the past eight years are not necessarily legally inadequate. However, the California Supreme Court has stated that local governments have an implied duty to keep their General Plans current and must review and revise their general plans as often as they deem necessary or appropriate. (*DeVita v County of Napa, 9 Cal.4th(1995)*). As of 2015, more than half of local jurisdictions have general plans that are over 15 years old. Often, this is because the process of adopting a General Plan has become too time-consuming and costly. Until present, the City has not updated the General Plan other than for the required Housing Element Updates.

2020 General Plan Accomplishments:

There were no General Plan Amendments applied or processed during the 2020 year. As stated in the previous year annual report, in 2019 the City began the process of a General Plan update. In 2020, the City received an HCD grant award under the California Department of Housing and Community Development SB2 (Building Homes and Jobs Act) for \$160,000 which will be applied to updating the General Plan. The update to the General Plan will provide as a useful guide for decision making regarding future land use, and will establish guidelines for managing, directing, and developing future land uses. The General Plan update will help to establish additional goals, policies, objectives, and standards for the future of this community.

This Update project is currently underway and will be brought before the Commission and City Council later this year at public hearings.

The Housing Element (one element under the General Plan) is undergoing a separate Update under the HCD/LEAP grant, awarded to the City in 2020 as well. Both of these grant awards will assist the City in bringing our General Plan into conformance and to help plan development for the future. The City's Housing Element is scheduled to be updated by November 30, 2021.

The City Planning Department has processed a tentative map for residential development this year. In an effort to remove constraints on residential development, Staff brought forth a couple of text amendments which have been adopted to the municipal code, allowing for exemptions to residential development within some commercial zones. An application for a change of use project; a motel to multi-family apartments, was approved during this year by the Planning Commission.

The City's strategy for Economic Development is on-going. City Staff and the Interim City Manager meet and discuss the development of vacant land within the City with interested developers as proposals are brought forth.

Staff presented the Housing Element APR to the Council on March 23, 2021 which detailed last years progress on implementing the Housing Element. As stated earlier, the Housing Element is currently undergoing an update. The State requires that a City report on both the Housing Element and the General Plan on an annual basis.

Staff presented the General Plan APR to the Planning Commission at a regular meeting on May 19, 2021. The Commission by motion, approved the APR to be forwarded to the City Council for review.

Environmental: This General Plan Annual Progress Report is not a project but a reporting document and does not create or alter policy and therefore is not subject to the California Environmental Quality Act (CEQA) per Section 15306.

STAFF RECOMMENDATION:

That the City Council review the Staff Report on the General Plan progress, and by motion approve and direct staff to forward the report to the Governor's Office of Planning and Research, and the State Department of Housing and Community Development, as required by Government Code Section 65400(b).

Submitted by:

A handwritten signature in blue ink, appearing to read "Karen Mantele", with a small dot at the end.

Karen Mantele
Principal Planner



REGULAR BUSINESS

AGENDA ITEM

TO: Honorable Mayor Domenighini and Members of the City Council

FROM: Wayne Peabody, Interim City Manager

SUBJECT: Agreement for Wastewater Facilities Condition Assessments

RECOMMENDATION:

By Motion authorize the Interim City Manager to negotiate and execute an agreement with NEXGEN Utility Management to provide consultant services to perform condition assessments of five sewer collection system lift stations and major process equipment at the Willows Wastewater Treatment Plant.

SITUATION (or BACKGROUND):

The City of Willows maintains five (5) sewer lift stations in the sewer collection system. Four (4) lift stations; Sycamore Street, Pacific Avenue, Lassen Street, and Road 57 are in the City Limits, and one lift station, the Cherry Street Lift Station, is in the Northeast Willows Community Services District. The lift stations are all over 30 years old and have been experiencing more frequent breakdowns, sometimes requiring emergency response to avoid a wastewater spill to the street or storm drain. Staff felt it would be prudent to have the lift stations evaluated by a professional engineering consulting firm with specialized experience in condition assessments of wastewater equipment, to determine remaining service life of major lift station components, which lift station components may need rehabilitation, the timing of improvements, and the estimated cost to perform improvements. The City would then be in a better position to plan and budget for future lift station improvements.

The last major improvement project at the Willows Wastewater Treatment Plant (WWTP) was completed in 2007. Although still in relatively good condition, some of the major process equipment at the WWTP is also starting to show signs of age. Staff felt it would also be prudent to have the major WWTP equipment evaluated by a professional engineering consulting firm with specialized experience in condition assessments of wastewater treatment plant equipment, to determine remaining service life of the major WWTP process components. It would be efficient and cost effective to have the condition assessments for both the lift stations and the WWTP equipment conducted simultaneously by the same consultant.

On March 23, 2021, the City Council authorized staff to send out a Request for Qualifications/Request for Proposals (RFQ/RFP) to conduct condition assessments of the five sewer lift stations and major process equipment at the WWTP. Staff contacted six

May 25, 2021

consulting firms with known specialized experience in this type of work. On April 28, 2021, the City received two Statements of Qualifications/Proposals (Proposals), from Stantec Engineering Consultants, HydroScience Engineers, and NEXGEN Utility Management. When contacted, the other firms stated they were too busy with other projects to propose on the work in Willows. The two proposals met the minimum qualifications, which included submitting a staffing plan, a workplan, experience performing condition assessments for similar facilities, a level of effort and cost proposal, references, and attendance at a mandatory site visit held on April 8, 2021. The proposals were independently ranked by a panel consisting of Public Works staff and contract engineering consultants familiar with the Willows lift stations and WWTP. Criteria used for ranking included the proposal material submitted for staffing, workplan approach, experience performing similar work, overall satisfaction of references, and proposed level of effort.

NEXGEN Utility Management

The panel was unanimous in identifying the highest ranked firm, NEXGEN Utility Management (NEXGEN). NEXGEN had the highest score, or was tied for the highest score, for every ranking criterion on every panel member's ranking sheet. NEXGEN also had the lowest proposed level of effort to complete the work. The City's RFQ/RFP required the proposing firm to submit a cost proposal based upon their proposed level of effort and their standard charge rate schedule. NEXGEN's cost proposal was \$ 79,560 to perform the condition assessments. This proposed cost is 33% less than the cost proposed by the second firm.

FINANCIAL CONSIDERATIONS

The funding for the condition assessments will come from the Sewer Fund. Prior to starting work on the lift station condition assessment, staff will contact the Northeast Willows Community Services District (NEWCSD) to confirm that NEWCSD is willing to pay for the condition assessment of the Cherry Street Lift Station. If NEWCSD is not interested in participating in the condition assessment, the Cherry Street Lift Station will be removed from the consultants Scope of Work.

NOTIFICATION:

The successful firm. All unsuccessful proposing firms.

ALTERNATE ACTIONS:

Reject Staff's recommendation and provide alternative direction.

May 25, 2021

RECOMMENDATION:

Staff recommends the Council, by Motion, authorize the Interim City Manager to negotiate and execute an agreement with NEXGEN Utility Management to provide consultant services to perform condition assessments of five sewer collection system lift stations and major process equipment at the Willows Wastewater Treatment Plant.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Wayne Peabody", written in a cursive style.

Wayne Peabody
Interim City Manager

ATTACHMENT:

HydroScience Proposal
Nexgen Proposal



FACILITIES CONDITION ASSESSMENT FOR SEWER COLLECTION SYSTEM LIFT STATIONS AND WASTEWATER TREATMENT PLANT MAJOR EQUIPMENT



April 28, 2020

HydroScience Engineers, Inc.
741 Allston Way
Berkeley, CA 94710
510.540.7100

Royce W. Cunningham, P.E.
Contract Community Services Director
City of Willows
201 N. Lassen Street
Willows, CA 95988

Subject: Proposal for Facilities Condition Assessment for Sewer Collection System Lift Stations and Wastewater Treatment Plant Major Equipment

Dear Mr. Cunningham:

HydroScience Engineers, and specifically the members of this project team, specialize in performing condition assessments for sewer pump stations and wastewater treatment plants. This team has directly relevant experience performing similar projects for the cities of Foster City, Gridley, Davis, Belmont, San Jose, and clients throughout Northern California. Some of our advantages include:

The Right Experience. Our team offers an extensive amount of sewer pump station and wastewater treatment plant experience. Our proposed project manager, Eric Petrel, has 37 years of experience and has recently managed the design and rehabilitation of dozens of pump stations throughout California. Bill Slenter, our wastewater treatment lead, has played key roles on several major wastewater treatment plant projects, including the City of Gridley WWTP expansion design, City of St. Helena, Thunder Valley, Stockton, and City of Davis. Our team will be supplemented by our in-house EIC department, who also provide specialized expertise in Arc Flash and NEC code compliance.

Local and Responsive. All our project team members are locally based and will be committed to executing the project. We will be there when you need us, you will communicate directly with us for all project work, and we will deliver a careful and accurate prioritization and characterization of your sewer infrastructure needs to include in your Capital Improvement Program.

Collaborative and Client-Focused. We listen to our clients and will provide creative solutions tailored to your long-term objectives. Our success is measured by your success. We encourage you to contact our references and ask them how we did, and how their projects have held up over the years. We're proud of our record and hope to add the City of Willows to our growing list of satisfied clients.

As president of HydroScience, I will personally oversee this project and ensure that we exceed your expectations. Please feel free to contact me anytime at (510) 403-4636 or clam@hydroscience.com.

Sincerely yours,

HYDROSCIENCE ENGINEERS



Curtis Lam, PE
Principal

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SECTION B

PROPOSED TEAM AND STAFFING

As a firm focused exclusively on water and wastewater infrastructure projects, HydroScience has performed condition assessments and designed improvements for dozens of sewer pump stations and wastewater treatment facilities across California. We have assembled an experienced team of experts who will bring the knowledge and lessons learned from our previous projects to the City.

Our team will be managed by **Eric Petrel, P.E.**, a senior project manager with 36 years of experience, primarily in sewer collection system design. Eric has personally managed the rehabilitation of lift stations all over California, including dozens in Foster City, Pittsburg, and El Cerrito. Eric has a comprehensive understanding of the issues involved in creating a well conceived, prioritized, and implementable Capital Improvement Program (CIP) based on the needs of the City's wastewater collection and treatment system. He is the right person to lead our practical and client-focused team. Eric will act as your day-to-day contact and will personally lead the lift station

condition assessment and manage the treatment plant condition assessment.

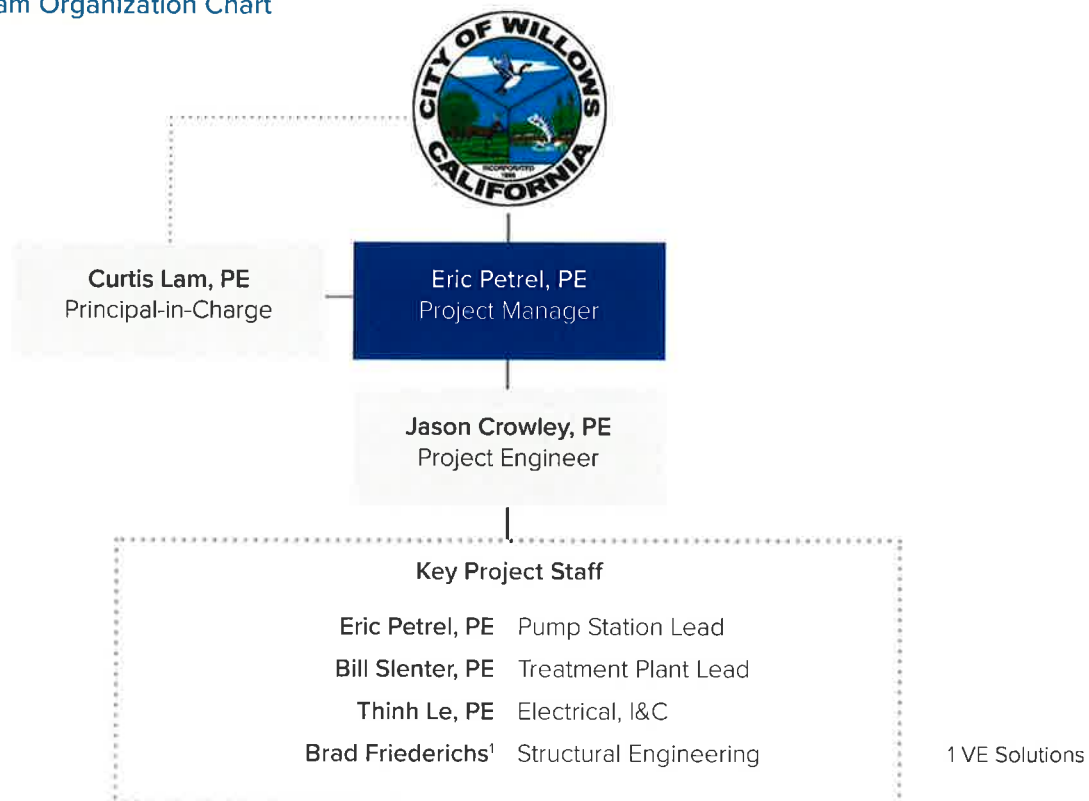
Eric will be supported by a team of engineers with the right qualifications and experience to deliver a comprehensive CIP, allowing the City to extend the remaining useful life of its sewer system well into the future. The benefits of our proposed project team include:



*Eric Petrel, PE
Project Manager*

Key Subject Matter Lead Expertise. We have identified expert subject matter leads for the pump station assessment, treatment plant assessment, EIC, and structural project elements. These subject matter leads have all collaborated on many other similar projects, and bring a wealth of similar experience to assess the condition of these City assets. Our Project Engineer,

Project Team Organization Chart



Jason Crowley, also served as the Project Engineer for the recent upgrades to the City of St. Helena WWTRP Upgrades project, served as Project Engineer for three new lift stations in Placer County, and has firsthand experience in the constructibility aspects of the project from his prior tenure working for GSE Construction on the City of Modesto BNR/Tertiary Treatment Plant Project.

Highly coordinated work products. Our in-house team includes a deep bench of mechanical, civil, process, electrical, and controls engineers who have worked together on many projects and are located nearby. Our previous work together gives us the ability to anticipate each other's needs and address issues as they arise, resulting in a high degree of cross-discipline coordination and comprehensive solutions.

Collaborative, client-focused mindset. Listening to our clients, understanding their needs, and reflecting those needs in every planning and design decision are core to our work culture. Our team members communicate effectively and provide creative solutions tailored to our clients' long-term objectives. We measure our success by how our clients feel about our work years after construction is complete.

Deep understanding of operations, maintenance and construction issues. Our team members are highly familiar with operations, maintenance, and constructability issues for pump stations and wastewater treatment plants. We have collaborated with contract operators, such as Inframark, to analyze the condition and performance of existing assets, determine how these upgrades should be sequenced, and minimize the impact of the upgrades on plant performance.

Team Member Qualifications and Role Descriptions

Below are brief qualifications statements for each of the team members shown on the organization chart, along with descriptions of their planned roles on your project. Focused resumes follow, which show licensing information and a few recent, relevant projects.

Curtis Lam, PE, is the President of HydroScience and will serve as Principal-in-Charge. In this role, Curtis will oversee the work activities of the team, ensure they remain committed to the City for the project duration, and that we meet or exceed your quality and performance expectations. He will also serve as an alternate point of contact for the City. Curtis recently served as project manager for the WWTRP Upgrades for the City of St. Helena, and provided QA/QC services for the WWTP Expansion Design for the City of Gridley.

Eric Petrel, PE, will serve as both your Project Manager and Pump Station Lead. He will be responsible for overall project delivery, scope, and project management. Eric will direct day-to-day project activities, providing the vision the project requires, coordinating with the City, and working with the team to ensure the project's overall success. Eric will serve as your primary contact.

Bill Slenter, PE, is a Principal with HydroScience and has 28 years of experience and is a wastewater treatment expert. He will serve as Treatment Plant Lead for the team, supervising the condition assessment of the City's WWTP. Bill served as project manager of the WWTP Expansion Project for the City of Gridley, provided QA/QC for the WWTRP Upgrades Project for the City of St. Helena, and served as principal-in-charge for the Silicon Valley Clean Water WWTP Reliability Improvements and the San José-Santa Clara Wastewater Facility Master Agreement.

Jason Crowley, PE, will serve as Project Engineer, working closely with Eric on project deliverables and execute Eric's overall technical direction. Jason will lead the technical evaluations, coordinate with our structural subconsultant, and supervise the creation of the final CIP documents. Jason has eight years of experience and has served as project engineer for the recent WWTRP Upgrade for the City of St. Helena, the Solaire Sanitary Sewer Lift Station and Creekview Sewer Lift Station in Roseville, and the Phase II BNR/Tertiary Treatment Plant Project in Modesto.

Thinh Le, PE, will provide electrical engineering, instrumentation and controls services, responsible for the electrical portions of the condition assessments. With 17 years of experience, Thinh has served as electrical engineer on a variety of wastewater treatment and pump station projects, including the WWTRP Upgrade Project for the City of St. Helena, Four Lift Stations Upgrades Project for the El Dorado Irrigation District, the Creekview Sewer Lift Station in Roseville, and the Regional Wastewater Control Facilities for the City of Stockton.

Brad Friederichs, SE, of VE Solutions, is a structural subconsultant who regularly works on HydroScience projects and acts as an extension of our team. Brad has worked with our team on numerous pump station and wastewater treatment improvement projects, including the Citywide Lift Station Assessments for both the City of Davis and the City of Belmont. His structural experience for WWTP projects includes WWTP Reliability Improvements for Silicon Valley Clean Water and Rehabilitation of the Regional Wastewater Control Facilities in the City of Stockton.

Curtis Lam, PE

Principal-in-Charge



EDUCATION

M.S., Civil and Environmental Engineering, University of California, Berkeley

B.S., Civil Engineering, University of California, Berkeley

REGISTRATION

Civil Engineer, California, Registration No. 59049

AFFILIATIONS

WaterReuse Association, Representative to the Board of Trustees, 2017 - Present

WaterReuse Association, President, 2015 - 2016

WaterReuse Association, Vice-President, 2013 - 2014

WaterReuse Association, Program Chair, 2011 - 2013

WaterReuse, Chair, 2013 California Annual Conference

California Water Environment Association

Water Environment Federation

Curtis Lam has 26 years of experience in the design of recycled water and potable water distribution system infrastructure, wastewater treatment and collection system design, and the master planning of water, wastewater, and recycled water infrastructure. A Principal with HydroScience, Curtis has served as Principal-in-Charge, Project Manager and Project Engineer on a wide range of water, wastewater, and recycled water projects.

SELECT PROJECT EXPERIENCE

St. Helena WWTRP Upgrades Project

City of St. Helena, California

Project Manager. The City of St. Helena was issued a CDO containing effluent limitations the City could not reliably obtain with their existing pond treatment plant. The City commissioned HydroScience Engineers to develop a Conceptual Design Report (CDR) to analyze treatment alternatives that would comply with the new NPDES effluent discharge limitations, while also modernizing the facility's treatment process. HydroScience identified a packaged MBR treatment system as the preferred WWTRP upgrade alternative. The WWTRP will maintain its permitted capacity of 0.5 MGD with the flexibility to operate the plant at a peak day hydraulic capacity of 1.33 MGD. This new system will result in tens of millions of dollars in cost savings when combined with repurposing four of the existing WWTRP ponds for use as flow equalization. The design is modular so that the City can cost-effectively expand the new system to meet anticipated buildout flows, if necessary. The RWQCB accepted the CDR findings without comment.

Gridley Wastewater Treatment Plant Expansion Design and Permitting

City of Gridley, California

QA/QC. HydroScience performed permitting and design services for this project, a \$2.5 million upgrade that doubled the capacity of Gridley's existing aerated pond treatment system to 1.7 MGD ADWF and 6.0 MGD PWWF. The upgrade provided the additional capacity needed to approve new residential, commercial, and industrial developments in the city; included a new headworks facility, aerators, hydraulics improvements, and electrical systems; and improved the quality of treated effluent. Permitting services included preparation of a ROWD and completion of a

detailed water balance which included field permeability testing. The RWQCB deemed the ROWD complete and issued a revised permit to Gridley allowing the expansion to proceed. HydroScience completed a groundwater monitoring program and characterization for the City in fulfillment of one of the requirements of the revised permit.

Lift Station Improvements, Phase 5

City of Foster City, California

Principal-in-Charge. HydroScience provide predesign, design, and construction support for the rehabilitation or replacement of nine lift stations throughout the city, in order to bring them to state-of-the-art-facilities. Upgrades included electrical, mechanical, structural, and civil upgrades. Typical improvements included replacement of the control panel, pumps and associated piping inside the lift station, generator and automatic transfer switch, SCADA components, and relocation of PG&E meters.

WWTP Gravity Thickener Rehabilitation

City of San Mateo, California

Principal-in-Charge. HydroScience performed a condition assessment on the existing gravity thickener system at the City of San Mateo's 12 MGD WWTP. HydroScience coordinated the confined space entry into the drained tank to examine the exposed thickener mechanism, and prepared recommendations to rehabilitate the entire gravity thickener system. The design includes replacement of the thickener mechanism; replacing the existing sludge withdrawal line; modifications to the existing pump room layout; modifications to change the configuration of the tanks from square to circular; piping and splitter box modifications; recoating the effluent well; miscellaneous repairs to concrete and grating; and electrical improvements.

Curtis Lam, PE



Fire Related Repairs to Water and Sewer Facilities

City of Santa Rosa, California

Principal-in-Charge. The City of Santa Rosa (City) selected HydroScience to prepare detailed plans and specifications to implement repairs and modifications to each of their ten potable water facilities and five of their sewer lift stations damaged in the Tubbs Fire. HydroScience visited each facility and verified the required repairs. The project scope and contract documents were developed in compliance with FEMA and CAL OES requirements under the Public Assistance Grant program. The repaired facilities included pump stations, reservoirs, and a well. Design for repairs included recoating a fire-damaged reservoir, replacing damaged generator, site equipment, fencing, irrigation, paving, and some building rehabilitation. HydroScience prepared plans, specifications, estimates, and contract documents for the projects.

Copeland Pump Station Rehabilitation

City of Petaluma, California

Principal-in-Charge. HydroScience was retained to assess and rehabilitate the Copeland Sewer Pump Station for the City of Petaluma. This facility is adjacent to the Petaluma River and provides pumping for the downtown area of the City. The facility was last upgraded in 1997, and required a number of operational, structural, mechanical, and electrical improvements. Improvements include installing new pumps, SCADA connection to the City's wastewater treatment facility, MCC, PG&E service, addition of flow metering and bypass pumping, HVAC in the control building, and modifications to the onsite building. HydroScience evaluated the existing standby generator and recommended replacement of the old generator as part of the project. The design of this project was completed in 2015, and construction was completed in 12 months.

Chrysanthy Pump Station

Sacramento Area Sewer District, California

Principal-in-Charge. HydroScience is planning and designing the sewer pump station that will serve the Bradshaw East Rancho Cordova sewer shed, SASD requires upgrades of the existing S132 pump station to increase pumping capacity from 5.5 mgd to 8.5 mgd. Improvements include installation of two 250 HP pumps in the existing pre-cast wet well, VFDs for each large pump, electrical upgrades, replacement of the existing standby generator, and a canopy to protect the electrical equipment. Design elements include updating the design report to reflect updated design criteria, evaluation of the pump station and forcemain hydraulics, development of final design documents for bidding by Fall 2021. All work performed in accordance with SASD Design Standards and with close coordination with SASD and the City of Rancho Cordova.

Creekview Specific Plan Sewer Lift Station

City of Roseville, California

Principal-in-Charge. HydroScience was retained to design and provide construction services for the implementation of a new 1 MGD submersible pump station. Major project features include an 8-foot diameter precast concrete wet well constructed 38 feet below grade, submersible ultrasonic level control with backup float level switch controls, state of the art local control panels, fiberoptic communication for remote monitoring with City Scada, below grade mechanical assemblies for forcemain/pump isolation, bypass pumping provisions, pigging stations, Standby electric generation, Proto II CMU structural wall, and approximately 12,000 gallons of onsite emergency storage within a below grade precast concrete box culvert storage basin. This station is currently in construction and is expected to be fully operational for Phase 1 sanitary sewer flows by March 2020.

Happy Camp Community Wastewater System Rehabilitation and Expansion

Happy Camp CSD, Siskiyou County, California

Principal-in-Charge. HydroScience designed flow monitoring and headworks upgrades at the wastewater treatment plant to meet the California Regional Water Quality Control Board Discharge Permit conditions. The wastewater collection system included six lift stations and two river crossings. The collection system was modeled using SewerCAD to identify and prioritize areas needing repair or replacement. The model was also used to plan for system upgrades and future expansion needs. The collection system project included lift station upgrades, provisions for standby power, and SCADA improvements for remote monitoring.

Tule River Wastewater Treatment Plant and Effluent Disposal

Indian Health Service, Tulare County, California

Principal-in-Charge. HydroScience was retained by the Indian Health Service to plan, permit, design, and provide the environmental documentation for a new influent pump station, influent force main, WWTP, and effluent disposal facilities to serve the Tule River Indian Tribe near Porterville, California. The project includes the construction of approximately fourteen miles of sewer collection system pipeline, collection system lift stations, a plant influent pump station, membrane bioreactor treatment plant, and effluent disposal facilities. The WWTP was designed to utilize a membrane bioreactor to produce tertiary effluent suitable for unrestricted use with disinfection. Approximately eight miles of the collection system has been constructed, and the plant influent pump station, influent force main, WWTP and effluent disposal facilities are currently under construction.

Eric Petrel, PE

Project Manager / Pump Station Lead



EDUCATION

M.S., Civil Engineering
(Environmental), San Jose State
University

B.S., Engineering Science,
University of California,
Berkeley

REGISTRATION

Civil Engineer, California,
Registration No. 46794

AFFILIATIONS

Bay Area Water Works
Association

California Water Environment
Association

Eric has 36 years of experience in civil engineering and the planning, design, analysis and rehabilitation of water and wastewater facilities. His background includes a variety of projects involving water, wastewater and recycled water transmission systems; treatment facilities; and site improvements and hydrology, with emphasis on the design and rehabilitation of conveyance systems.

SELECT PROJECT EXPERIENCE

Lift Station Improvements, Phase 5

City of Foster City, California

Project Manager. HydroScience is providing design and construction support for the rehabilitation or replacement of nine lift stations throughout the city, in order to upgrade them to state-of-the-art-facilities. Upgrades include electrical, mechanical, structural, and civil improvements. Typical improvements include replacement of the control panel, pumps and associated piping inside the lift station, generator and Automatic Transfer Switch, reuse SCADA components as possible, and relocation of PG&E meter as necessary.

Lift Station Improvements, Phases 1-4

City of Foster City, California

Project Manager. This project included reconnaissance, planning, design and construction management for wastewater lift station wet well rehabilitation, pump and piping replacement, construction of nearby and off-site buried force main, and other improvements for 23 lift stations in four design and construction phases. Failing wet well coatings were removed and replaced with new polyurethane two-part coating to protect concrete surfaces from sulfide attack. Pumps and corroded piping were replaced with corrosion-resistant materials. The project included detailed development of flow control, bypass and linestopping requirements to prevent spillage and ensure that sewers in the work area operated continuously. Later design and construction phases included developing and installing standardized pump control panels, and replacing aging standby generators and the SCADA system.

Citywide Lift Station Assessments

City of Belmont, California

QA/QC. HydroScience is providing on-call general engineering services for sanitary

sewer, water, and storm drain improvements. This project under the on-call agreement consisted of an assessment and inventory of the structural, mechanical and electrical components of the City's eleven sewage lift stations. Results from inventory and assessment have been tabularized in a report and then used as the basis of proposed recommended improvements. These recommendations included planning-level cost estimates for development by the City Staff into a Capital Improvement Program (CIP). HydroScience then reviewed all existing as-builts and then conducted extensive field investigations, which included on-site interviews with O&M Staff regarding the equipment and condition, structural evaluation of each lift station, and electrical evaluation of each station. The final report will provide site by site assessments and recommendations regarding the pump condition and access, piping, valves, wet well / dry pit condition and access, electrical equipment condition, instrumentation, safety, security, and lighting, as well as recommendations for each station improvements, replacement and standardization. A priority list of improvements was prepared to assist the City in expediting projects for the most critical needs.

Wastewater Pump Stations Evaluation

Stege Sanitary District, City of El Cerrito, California

Project Manager. Eric performed a field inspection and records evaluation of the District's two wastewater pump stations. He prepared a report that recommended minor improvements to extend the life of one of the pump stations and presented a conceptual design for replacing the other pump station, which could not be economically rehabilitated.

Eric Petrel, PE



Lift Station 28 Relocation

City of Foster City, California

Project Manager. HydroScience reviewed the design of the Lift Station 28 improvements and the wastewater master plan prepared by Gilead Sciences for the expansion of their corporate headquarters. HydroScience also provided construction inspection services and engineering services during construction.

CVSan Aerial Pipeline and Pump Station Rehab

Castro Valley Sanitation District (CVSan), California

QA/QC. This project includes designing cured-in-place pipe (CIPP) rehabilitations to four sewer pipelines, ranging in sizes of 8-inch to 24-inch diameters, where the pipelines cross over creeks. CIPP is the recommended method of rehabilitation as it would result in less site impacts within the riparian habitats, than would occur with complete pipeline replacement, while furnishing structural and hydraulic improvements to the decaying pipes. HydroScience also designed rehabilitations and improvements to seven pump stations. The rehabilitation measures include recoating structures and equipment, plus replacement of outdated electrical and instrumentation devices. Facility improvements consist of new bypass piping, new vault lid hatches for ease of lifting, plus adding enhanced safety features, like fall protection anchors and ladder extensions. HydroScience worked closely with the District's O&M staff to assure that the desired upgrades will be implemented to meet their needs. Construction started in December 2020, for which engineering services during construction are being provided.

Ralston Avenue Sewer Rehabilitation

City of Belmont, California

QA/QC and Manhole Inspection Engineer. To address surcharging in several sewer manholes in Ralston Avenue, the City of Belmont retained HydroScience to provide capacity studies and sewer modeling services, slate segments and facilities for improvement, prepare contract documents, and provide bid and engineering services during construction. HydroScience verified the City's flow model and assessed the condition of the City sewers and manholes, updated and adjusted the model for accurate future flow scenarios and a better representation of actual conditions in the Ralston Avenue sewers. The project included preparing recommendations for repair, replacement, or rehabilitation, with consideration for trenchless options where possible. This project won the 2019 American Public Works Association Silicon Valley Chapter's Honor Award.

Foster Square Sewer Capacity Study

City of Foster City, California

Project Manager. As part of HydroScience's On-Call contract with the City, HydroScience is providing support for the Foster Square development, a mix of mixed commercial and

residential developments. In order to meet the City's Condition of Approval Memorandum, HydroScience is preparing a sewer flow projection study and a hydraulic capacity study, and will review CCTV inspections of City sewers. HydroScience is working with the City to identify the capacity potentially available in the sewer shed. Sewage generation projections for the development will also be reviewed and approved and compared to the available capacity identified in the sewer. HydroScience will document to the City a letter report summarizing the available capacity, flow projections, and necessary improvements to facilitate the project.

Lift Station 59 Effluent Line Improvement

City of Foster City, California

Project Manager. HydroScience prepared bid set plans to replace and improve the effluent line connecting to the City's Lift Station 59. This includes replacing the existing 24-inch seismic expansion joint assembly, and converting the existing ball valve and linestop fitting into a bypass vault on the line adjacent to the lift station. The cathodic protection system was also replaced. A 20-inch temporary sludge bypass, required for construction, was included in the design. HydroScience provided engineering services during construction.

Sanitary Sewer Inspection and Citywide Sewer Rehabilitation

City of Pittsburg, California

Project Management. The City of Pittsburg owns and operates about 100 miles of sanitary sewer, most of which is reaching the end of its design life. HydroScience is providing design services for the replacement and upgrades of approximately 8,500 LF of sewer lines, rehabilitation of aging manholes, and installation of new manholes to improve maintenance access. Design includes relocation of shallow, flat sewers to improve sewer flow velocities and to permit the abandonment of backyard sewer easements. Challenges include a BNSF railway crossing, using pilot tube guided auger boring to install a 24-inch steel casing under the railway. HydroScience also designed replacements for 2,700 LF of undersized 10-inch water main with a new 16-inch main to improve system performance. HydroScience is providing permitting assistance for the new railway crossing as well as an Underground Classification from the CalOSHA Mining and Tunneling unit for installation of the steel casing, and prepared the engineer's cost estimate and provided bid period assistance.

Interceptor Structure Design

Central Contra Costa Sanitary District, California

Design Engineer. Eric designed hydraulic structures for the Pleasant Hill Relief Interceptor project in northern Contra Costa County. The structures included diversions, overflows and bypasses for sewers up to 102-inches in diameter.

Bill Slenter, PE

Treatment Plant Lead



EDUCATION

B.S., Civil Engineering, San Francisco State University

REGISTRATION

Civil Engineer, California, Registration No. 57640

AFFILIATIONS

California Water Environment Association (CWEA)

Central Valley Clean Water Association – Outreach Committee Chairperson

Former Chairperson, CWEA San Francisco Bay Section Communications Committee

CWEA Sacramento Area Section

Bill Slenter is a civil engineer with 28 years of experience. His areas of expertise include permitting, funding, planning, design, and construction support of wastewater, water, and recycled water systems. A principal with HydroScience, he has served as principal, project manager and project engineer on a wide range of water-related projects.

SELECT PROJECT EXPERIENCE

Wastewater Treatment Plant Reliability Improvements

Silicon Valley Clean Water, Redwood City, California

Principal-in-Charge and QA/QC. HydroScience is the engineer-of-record for this design-build project to provide plant reliability improvements for Silicon Valley Clean Water's 24 MGD WWTP in Redwood Shores, California. Work includes upgrading the aeration basin blower system to high speed turbo blowers with all new distribution piping and control valves, correcting basin flow split issues, installing a fan press solids dewatering system and conveyors, and replacing their granular media filter backwash pumps.

Facility Master Agreement, San José-Santa Clara Regional Wastewater Facility

City of San José, California

Principal-in-Charge. HydroScience is providing on-call planning, evaluation, detailed design, and construction support services under a multi-year Master Services Agreement (MSA) with the City of San José. The Regional Wastewater Facility (RWF) is a 167 MGD secondary and tertiary wastewater treatment plant. HydroScience is working directly with the RWF's engineering, operations, and maintenance staff to implement studies and designs on an on-call basis throughout the facility. HydroScience has completed condition assessments and evaluations for the outfall bridge, major pond gates, and HVAC systems. HydroScience also completed designs of nitrification clarifier exterior lighting to improve safety during night-time operations, and designed the replacement of the existing process water (3W) pumps which deliver up to 14,000 gpm to unit processes throughout the plant.

Wastewater Treatment Plant Rehabilitation and Replacement

City of Davis, California

Principal-in-Charge. HydroScience provided design and construction support services for the City's WWTP Rehabilitation and Replacement Project. The project included significant upgrades to the existing dry pit influent pumps, which were oversized for current flows and had significant O&M challenges. The improvements included revised suction piping, new pumps, and a revised discharge piping arrangement. The improved facility operates at a higher efficiency with flow turndown and reduced incidence of clogging. Headworks improvements include new bar screens and washer/compactors, as well as modifications to existing influent channels to improve scour velocity to reduce maintenance and corrosion. Primary clarifier improvements include new chain and flight scrapers equipment.

Gridley Wastewater Treatment Plant Expansion Design and Permitting

City of Gridley, California

Project Manager. HydroScience performed permitting and design services for this project, a \$2.5 million upgrade that doubled the capacity of Gridley's existing aerated pond treatment system to 1.7 MGD ADWF and 6.0 MGD PWWF. The upgrade provided the additional capacity needed to approve new residential, commercial, and industrial developments in the city; included a new headworks facility, aerators, hydraulics improvements, and electrical systems; and improved the quality of treated effluent. Permitting services included preparation of a ROWD and completion of a detailed water balance which included field permeability testing. The RWQCB deemed the ROWD complete and issued a revised permit to Gridley allowing the expansion to proceed. HydroScience

Bill Slenter, PE



completed a groundwater monitoring program and characterization for the City in fulfillment of one of the requirements of the revised permit.

St. Helena WWTRP Upgrades Project

City of St. Helena, California

QA/QC. The City of St. Helena was issued a CDO containing effluent limitations the City could not reliably obtain with their existing pond treatment plant. The City commissioned HydroScience Engineers to develop a Conceptual Design Report (CDR) to analyze treatment alternatives that would comply with the new NPDES effluent discharge limitations, while also modernizing the facility's treatment process. HydroScience identified a packaged MBR treatment system as the preferred WWTRP upgrade alternative. The WWTRP maintained permitted capacity of 0.5 MGD with the flexibility to operate the plant at a peak day hydraulic capacity of 1.33 MGD. This new system will result in tens of millions of dollars in cost savings when combined with repurposing four of the existing WWTRP ponds for use as flow equalization. The design is modular so that the City can cost-effectively expand the new system to meet anticipated buildout flows, if necessary. The RWQCB accepted the CDR findings without comment.

Davis Citywide Lift Station Assessments

City of Davis, California

Principal-in-Charge. HydroScience provided on-call general engineering services for sanitary sewer, water, and storm drain improvements. The project included an assessment and inventory of the structural, mechanical and electrical components of the City's 14 lift stations, and HydroScience prepared a report, proposed recommended improvements, and provided planning-level cost estimates for development into a Capital Improvement Program (CIP). HydroScience reviewed existing as-builts, conducted field visits, and talked to O&M staff regarding the equipment and conditions, structural evaluations of select lift stations, and electrical evaluations of all lift stations. The report included assessments and recommendations regarding the pump conditions and accesses, piping, valves, wet well / dry pit condition and access, electrical equipment condition, instrumentation, safety, security, and lighting.

EID Four Lift Stations Upgrades

El Dorado Irrigation District, California

Principal-in-Charge. HydroScience provided facility evaluations, predesigns, and designs for the rehabilitation/replacement of four sewer lift stations for EID. Each project involved significant rehabilitation and replacement elements on space-restricted properties with sensitive neighbors. All lift stations receive new submersible pumps ranging up to 70 hp, and will include upgraded standby generators in sound enclosures. All facilities

needed to be kept in reliable operation while improvements are completed. The project built on the foundation HydroScience established with the District on previous lift station designs. The design approach targeted long term reliability and safety, including such features as permanent vector truck pipes, safety grates, lanyard anchors, guard rail sockets and Arc Flash requirements for electrical equipment. HydroScience provided bidding and construction phase support for these facilities.

Sunnyvale Five Sewer Lift Station Upgrades

City of Sunnyvale, California

Principal-in-Charge. HydroScience provided planning, condition assessment, and design for the rehabilitation of five aging sewer lift stations within the City. A comprehensive condition assessment of each lift station and recommendations for improvements at each station were developed. Recommendations varied depending upon their exiting physical condition and the cost-effectiveness of modifications to the existing facilities. Upgrades included spring assisted wet well and valve vault lids with safety grates, flow meters, sewer force main bypass connections, epoxy lining of the wet wells, replacement of submersible pumps, installation of flush valves, and relocation and replacement of the electrical controls. SCADA systems at each of the five sewer lift stations were also upgraded to provide more efficient remote monitoring and control to optimize operation.

Davis WWTP Secondary and Tertiary Improvements

City of Davis, California

Principal-in-Charge. HydroScience provided process design, coordination, and commissioning assistance as part of a design-build team for the construction of secondary and tertiary improvements at the City's WWTP. The peak treatment capacity is 18 MGD. This \$70M upgrade modernized the facility and brought it into compliance with current discharge regulations. The project included design and construction of activated sludge secondary treatment facilities (aeration and clarification), tertiary disc filters, chlorine disinfection, post-aeration, effluent pumping, flood control facilities, and a new administration building. HydroScience's core areas of responsibility on this project included the chlorine contact basin, chemical mixers, chlorine residual monitors, utility water systems, effluent reaeration system, field instrumentation, leading roles on commissioning and process transitioning, and support for plant tie-ins and owner coordination.

Jason Crowley, PE

Project Engineer

HydroScience 



EDUCATION

B.S., Environmental Resources Engineering, Humboldt State University

REGISTRATION

Civil Engineer, California
Registration No. 88975

Jason has eight years of experience and has served as project engineer, inspector, and construction manager for a wide range of engineering projects for HydroScience. Jason has had key roles in the planning and design of new civil site design projects, collection system infrastructure projects, and the planning of new water supply and distribution system infrastructure. Jason's aptitude and experience in construction services benefit any effort to which he is assigned and any team to which he leads or supports.

SELECT PROJECT EXPERIENCE

St. Helena WWTRP Upgrades Project

City of St. Helena, California

Project Engineer. The City of St. Helena was issued a CDO containing effluent limitations the City could not reliably obtain with their existing pond treatment plant. The City commissioned HydroScience Engineers to develop a Conceptual Design Report (CDR) to analyze treatment alternatives that would comply with the new NPDES effluent discharge limitations, while also modernizing the facility's treatment process. HydroScience identified a packaged MBR treatment system as the preferred WWTRP upgrade alternative. The WWTRP maintained its permitted capacity of 0.5 MGD with the flexibility to operate the plant at a peak day hydraulic capacity of 1.33 MGD. This new system will result in tens of millions of dollars in cost savings when combined with repurposing four of the existing WWTRP ponds for use as flow equalization. The design is modular so that the City can cost-effectively expand the new system to meet anticipated buildout flows, if necessary.

Solaire Sanitary Sewer Lift Station

MacKay & Soms, City of Roseville, California

Project Engineer. HydroScience provided design and construction services for the implementation of a new 0.93 MGD sanitary sewer lift station located within the Westbrook Development of Roseville California. HydroScience developed construction ready PS&E documents in conformance to the City of Roseville's design standards for sanitary sewer remote facilities. The design package includes a state of the art submersible pumping and control system designed for automatic and redundant operation, precast concrete structures, concrete and asphalt paving, site grading, yard piping, and a structural

perimeter wall. Challenges of the design include developing a buildable and cost effective solution to a 99,000-gallon emergency storage basin which will supplement the gravity sewer system.

Lift Station 28 Relocation Project

City of Foster City, California

Construction Manager / Inspector. HydroScience provided construction management, engineering, and inspection services during construction to the City of Foster City during the Lift Station 28 Relocation Project for the expansion of Gilead Science's corporate headquarters. HydroScience acted as the City's field representative for the duration of this project. This project included complete demolition of the existing lift station facility and installation of 2,000 linear feet of deep gravity sewer, two new precast structures, submersible pumping system and forcemain piping, new electrical service and site electrical distribution, concrete and AC paving, and the implementation of a new standby generator.

WWTP Gravity Thickener Rehabilitation

City of San Mateo, California

Project Engineer. HydroScience performed a condition assessment on the existing Gravity Thickener system at the City of San Mateo WWTP. The assessment included examining the mechanical and structural components of the thickener tank, mechanism, and exposed piping; developing options for replacing the existing sludge withdrawal lines; modifications to the existing pump room layout; modifications to change the configuration of the tanks from square to circular; piping modifications, and various other minor items related to the thickener system.

Thinh Le, PE

Electrical Engineering, Instrumentation and Controls



EDUCATION

M.S., Electrical Engineering,
California State University,
Sacramento

B.S., Electrical Engineering,
California State University,
Sacramento

REGISTRATION

Electrical Engineer, California,
Registration No. E18362

Thinh Le has over 17 years of experience serving as Project Manager, Lead E&IC Engineer on a variety of water, wastewater, and recycled water projects. He has knowledge of ISA, IEEE, NEC, NFPA, and codes applicable to electrical and I&C system design and construction. He has worked in both electrical and I&C roles on design and construction management projects and has an extensive working knowledge of electrical project development from analysis, SCADA systems, network & communication security, industrial automation controls, emergency and standby power, and electrical power systems including low and medium voltage electrical systems.

SELECT PROJECT EXPERIENCE

St. Helena WWTRP Upgrades Project

City of St. Helena, California

Electrical Engineer. The City of St. Helena was issued a CDO containing effluent limitations the City could not reliably obtain with their existing pond treatment plant. The City commissioned HydroScience Engineers to develop a Conceptual Design Report (CDR) to analyze treatment alternatives that would comply with the new NPDES effluent discharge limitations, while also modernizing the facility's treatment process. HydroScience identified a packaged MBR treatment system as the preferred WWTRP upgrade alternative. The WWTRP will maintain its permitted capacity of 0.5 MGD with the flexibility to operate the plant at a peak day hydraulic capacity of 1.33 MGD. This new system will result in tens of millions of dollars in cost savings when combined with repurposing four of the existing WWTRP ponds for use as flow equalization. The design is modular so that the City can cost-effectively expand the new system to meet anticipated buildout flows, if necessary.

EID Four Lift Stations Upgrades

El Dorado Irrigation District, El Dorado County, California

Electrical Engineer. HydroScience provided facility evaluations, predesigns, and designs for the rehabilitation/replacement of four sewer lift stations for EID. Each project involved significant rehabilitation and replacement elements on space-restricted properties with sensitive neighbors. All lift stations received new submersible pumps ranging up to 70 hp, and included upgraded standby generators in sound enclosures. All facilities needed to be kept in reliable operation while improvements were completed. The design

approach targeted long term reliability and safety.

EID Carson Creek 2 Lift Station

El Dorado Irrigation District, El Dorado County, California

Electrical Engineer. HydroScience designed the new Carson Creek 2 lift station to expand the District's collection system to serve the new Carson Creek Unit 2 development. The new station includes two 940 gpm, variable speed, 34 hp submersible pumps in a precast concrete wetwell. Additional features include three large pre-cast emergency storage manholes, influent/bypass manhole, Zabocs odor control system, associated piping, an electrical building, new electrical power service, a new motor control center, a 100 kW standby generator, and above ground discharge headers for easy maintenance.

Regional Wastewater Control Facilities

Stockton, San Joaquin County, California

Lead EI&C. HydroScience is taking a lead role on the rehabilitation of the primary clarifiers and sludge and scum pumping systems as part of this Progressive Design-Build project. The clarifiers consist of three discrete banks constructed at different times and configured differently. HydroScience performed a mechanical condition assessment, utilized a facility mass balance to determine anticipated future sludge removal rates and flows for pumping, developed proposed rehabilitation approaches for the clarifiers, worked with the contractor to refine construction approach and develop cost estimates for the improvements, and presented our findings in a workshop to City staff.

Brad Friederichs, SE

Structural Engineer



EDUCATION

B.S., Civil Engineering with honors, California State University, Sacramento

REGISTRATION

Structural Engineer, California, Registration No. S2780

AFFILIATIONS

Structural Engineers Association of Central California, president 1989-90

American Society of Civil Engineers

American Concrete Institute

American Institute of Steel Construction

Brad Friederichs has 38 years of experience as a structural engineer for wastewater, water treatment, commercial, industrial, agricultural, retail and residential structures. His expertise is in cast-in-place concrete, prestressed concrete, steel, wood and masonry construction. His specialty is in producing completely detailed, contractor friendly, value-oriented construction documents resulting in projects that bid well with few change orders.

PROJECTS AS SUBCONSULTANT TO HYDROSCIENCE

Citywide Lift Station Assessments

City of Davis, California

Structural Engineer. HydroScience provided an assessment and inventory of the structural, mechanical and electrical components of the City's 14 lift stations, and prepared a report, proposed recommended improvements, and provided planning-level cost estimates for development into a Capital Improvement Program (CIP). HydroScience reviewed existing as-builts, conducted field visits, and talked to O&M staff regarding the equipment and conditions, structural evaluations and electrical evaluations of all lift stations. The report included assessments and recommendations regarding the pump conditions and accesses, piping, valves, wet well / dry pit condition and access, electrical equipment condition, instrumentation, safety, security, and lighting.

Citywide Lift Station Assessments

City of Belmont, California

Structural Engineer. HydroScience provided assessment and inventory of the structural, mechanical and electrical components of the City's 11 sewage lift stations. Results from inventory and assessment were tabularized in a report and then used as the basis of proposed recommended improvements. These recommendations included planning-level cost estimates for development by the City Staff into a CIP. HydroScience then reviewed all existing as-builts and then conducted extensive field investigations, which included on-site interviews with O&M Staff regarding the equipment and condition, structural evaluation and electrical evaluation of each station. The final report provided site by site assessments and recommendations regarding the pump condition and access, piping, valves, wet well / dry pit condition and access, electrical equipment condition, instrumentation, safety,

security, and lighting, as well as recommendations for each station improvements, replacement and standardization. A priority list of improvements was prepared to assist the City to expedite the most critical needs.

Wastewater Treatment Plant Reliability Improvements Project

Silicon Valley Clean Water, California

Structural Engineer. HydroScience is the engineer-of-record for the Overaa/HydroScience design-build team for this design-build project to provide plant reliability improvements for Silicon Valley Clean Water's 24 MGD WWTP in Redwood Shores, California. Work includes upgrading the aeration basin blower system to high speed turbo blowers with all new distribution piping, correcting basin flow split issues starting with a hydraulic profile study, installing a fan press solids dewatering system and conveyors, adding backup water for generators, and replacing their granular media filter backwash pumps.

Regional Wastewater Control Facilities

City of Stockton, California

Structural Engineer. HydroScience is taking a lead role on the rehabilitation of the primary clarifiers and sludge and scum pumping systems as part of this Progressive Design-Build project. The clarifiers consist of three discrete banks constructed at different times and configured differently. HydroScience performed a mechanical condition assessment, determined anticipated future sludge removal rates and flows for pumping, developed proposed rehabilitation approaches for the clarifiers, worked with the contractor to refine construction approach and develop cost estimates for the improvements, and presented our findings in a workshop to City staff.

SECTION C

PROJECT UNDERSTANDING AND APPROACH

Project Understanding

Performing a comprehensive condition assessment of the City's five lift stations and the wastewater treatment plant (WWTP) will allow the City to identify and prioritize projects to include in a long-term Capital Improvement Plan (CIP), and develop a basis for establishing wastewater rates. Projects would be organized by cost, remaining useful life, and criticality to identify the recommended timing for each project.

Five collection system lift stations will be assessed as part of this scope. Four of the lift stations provide service to the City, while a fifth provides service to a special district. Many of the pump stations share similar characteristics, including:

- Construction during late 80s/early 90s
- Duplex submersible ~3 hp pumps
- Valves are in vertical position inside the wet wells instead of in separate valve vaults
- Wet wells are normal depth but lack fall protection
- On-site standby generator for backup power supply
- No SCADA control
- Record drawings are generally unavailable or incomplete

In 2007, the City WWTP underwent a major upgrade and now includes clarification, extended aeration, filtration, chlorination, and dechlorination. In general, the City has complied with the effluent limitations promulgated in its waste discharge requirements (WDRs). Visual observation of the WWTP showed that the plant appeared to be in good condition and operating as would be expected for a 1.2 MGD tertiary treatment plant.

In 2020, the City entered into a 10-year agreement with Inframark to provide O&M for the WWTP. As part of this agreement, Inframark is providing contract WWTP operations and preventative maintenance services. Inframark has a staff of three typically assigned to Willows, with additional resources potentially available to perform non routine repair and/or replacement of major equipment or specialized services.

Approach

Tasks I through III of the Scope of Services outlined in the RFP will be executed by the Project Team identified in Pages 3-13 of this proposal. HydroScience and its key Project Staff will visit all of the subject facilities with Public Works and Inframark staff who are responsible for day-to-day operation of the facilities. It is expected that site visits will be performed over two days for Task I and a third day for Task II.

HydroScience staff performing field assessment will include:

*Eric Petrel, Project Manager
Jason Crowley, Project Engineer
Thinh Le, EIC*

For Task I, HydroScience will perform the following tasks:

- Create a written inventory of all major mechanical, electrical, and instrumentation equipment.
- Visually inspect structures, access ways, equipment, piping, appurtenances, electrical panels, control equipment, lighting, safety measures, and other assets.
- Take photographs of all assets and components that are visually inspected. It was noted that HydroScience will not enter any confined spaces as part of this scope. No destructive testing or disassembly is assumed.
- Collect recent maintenance information, pump run time records, and available information about the operations and maintenance history of each asset. It is understood that SCADA data is unavailable for the collection system lift stations.
- Watch the stations operate through a complete fill and drain cycle.
- Compare pump run-time records to determine if pumps are properly sized, and to identify any failing pumps.
- Document any apparent safety risks observed during the visits.
- Discuss the pump station operation and condition with City staff. It is expected that this will include an understanding of the operational needs, repair history, and concerns or limitations.

Following the field visits, HydroScience will perform a desktop review and evaluation of all of the information gathered. Items to be detailed by HydroScience will include:

- Review of visual data, notes, and documentation.
- Consideration of current facility configuration and equipment type(s) in comparison to current industry standards and City needs. HydroScience will evaluate opportunities to improve reliability, efficiency, operations, and maintenance.
- Estimate available capacity based on equipment name plates, available information provided by the City, and field observations.
- Determine operating patterns (levels, starts per hour) during dry and wet weather conditions.
- Determine level of equipment redundancy compared to industry standard.
- Consider availability of spare parts and vendor support for major installed equipment (mechanical, electrical, controls).
- Consider normal and emergency power sources, capacity, and reliability.
- Determine appropriate fall protection requirements for each pump station. No fall protection exists at any of the wet wells.
- Determine feasibility of installing valve vaults or bypass connections at each station.
- Determine feasibility of installing SCADA controls. Existing operational controls for each pump station will be reviewed to determine if floats are optimally located.
- Where applicable, photos, standard details, or AutoCAD drawings of suggested improvements will be documented and annotated by HydroScience to document asset inventory, projects, and condition.

With four of the five pump stations located within public streets, considerations to relocate the pump stations out of public streets will not be evaluated for cost and land use considerations. Options to add infrastructure in the public right-of-way will consider the location of existing utilities. Suggested traffic control measures to enhance the safety of required lift station O&M will be suggested based on MUTCD traffic control standards.

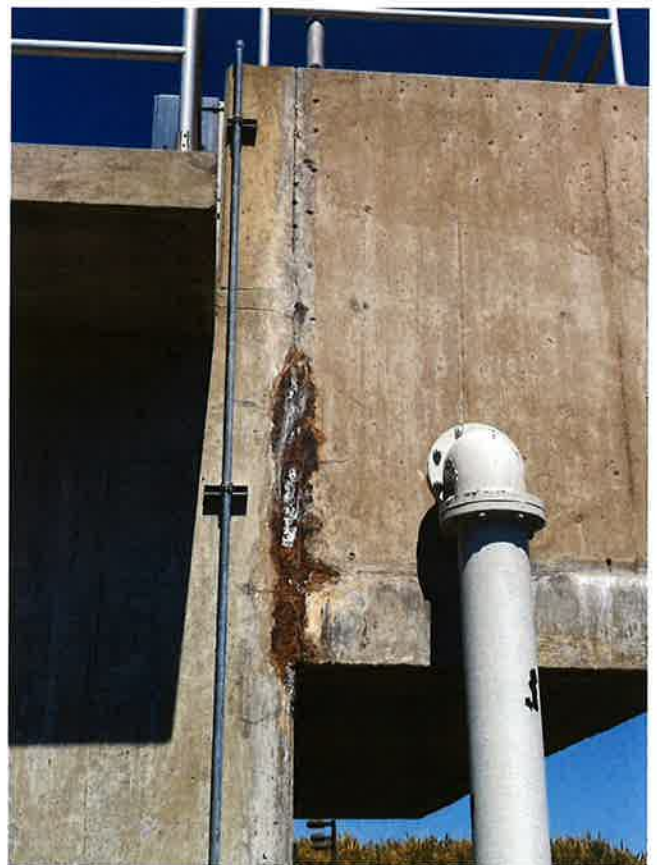
For Task II, a similar level of analysis will be performed on the WWTP assets. The analysis at the WWTP will be expanded to include structural integrity, and evaluation of the control systems, and a more detailed analysis of available data in order to evaluate process performance,

control strategies, and evaluation of the structural integrity of existing structures, and a review of the City's WDR permit in relation to process performance.

HydroScience will prepare a Condition Assessment Report for the Lift Station and Treatment Plant assets. This report will provide a summary of our findings, identify any known construction, operational, maintenance, or risk deficiencies, and identify the recommended improvements, priority, and their estimated cost. Each improvement will also be prioritized and sequenced into a logical grouping of projects to develop projects that can go into a CIP.



Bill Slenter will be the lead for the Treatment Plant and work closely with Eric and our Project team to perform this condition assessment.



The Willows WWTP appears to generally be in good condition. However, selected unit processes may have structural concerns that will be inspected by our structural engineer to develop long-term repair recommendations.

It is expected that projects will be sequenced based both the likelihood and consequence of failure. Potential rating criteria will be developed in concert with the City during one of our coordination meetings.

The contents of the Condition Assessment Reports will include:

- **Asset Inventory:** Summary of the assets at each pump station and at the WWTP.
- **Condition Assessment:** This assessment will be based primarily on field assessment performed by our staff, a review of available information provided by the City, and comparison of the civil, mechanical, structural, electrical, and I&C systems in relation to industry standards.
- **Risk Assessment:** The likelihood of failure and consequence of failure will be identified for each asset based on rating criteria recommended by HydroScience and developed in concert with the City. The rating criteria will be used to prioritize projects and identify what location(s) may require immediate attention (if any).
- **Recommended Improvements:** For each asset, projects will be grouped as applicable into Capital Improvement Projects. Each project will have a budgetary cost estimate based on recent similar projects, our experience and expectation, and the current bidding climate. The relative priority of each project will be sequenced to help develop a Capital Improvement Plan. The timing of each City project will depend on available funding and the success of procuring funds for each project. HydroScience will develop a recommended implementation schedule based on an evaluation of current budgets and City input.

It is expected that both TMs will be submitted separately but completed in parallel. HydroScience will submit first drafts of both TM No. I and No. II to the City and meet with the City to discuss the City's comments on each document. A workshop will be held with the City approximately three weeks after submittal of each document to review and coordinate responses to each comment and have a collaborative discussion on next steps. A second draft of each TM will then be submitted that will incorporate the results of comments on the first draft. Each comment received on the first draft will be responded to in the second draft, and a response to comments sheet will be prepared in Excel and included with the submittal of the second draft. Comments on the

second draft will be incorporated into the final, stamped submittal.

At the City's direction, HydroScience will be available to attend a council meeting to discuss the condition assessment TMs. It is expected that this council meeting will be scheduled after either the second or final draft submittals of each document. HydroScience's Project Manager will be available to attend or provide information, slides, or collateral material in support of the meeting. Additionally, HydroScience has included level of effort for up to three progress meetings with the City. These progress meetings will focus on technical issues associated with the lift stations and treatment plant and to have an interactive discussion on applicable topics. Monthly check-in meetings will also be performed to keep the City informed on the project status.

We expect that three days of field visits will be completed during the first 2-3 weeks after receipt of Notice to Proceed. An evaluation of the data collected will be completed approximately 6 weeks after the site visits. During this six week evaluation period, it is expected one of the meeting(s) with the City will be held for TMs No. I and II to discuss any technical questions or issues HydroScience may have. It is expected that the second and final drafts can be submitted within 2-3 weeks of receipt of comments on each draft. The overall work associated with the project schedule will be completed within 3-4 months, as outlined in the RFP. The scheduling of the council meeting will be coordinated with the City and can occur at the timing of the City's preference.

SECTION D

RELEVANT QUALIFICATIONS AND EXPERIENCE

About HydroScience

HydroScience Engineers is a civil and environmental engineering firm that plans, designs, and manages the construction of water, wastewater, and recycled water projects. With offices in Sacramento, Berkeley, Concord, and San Jose, we understand and address the complex water needs of Northern California.

Founded in 1997 in Sacramento, HydroScience is a California corporation and certified Small Business Enterprise (SBE) managed by five principals. Our staff of 39 professionals includes licensed civil, mechanical, environmental, and electrical and instrumentation engineers, funding and permitting specialists, hydraulic modelers, drafters, construction managers, LEED accredited professionals, and marketing and administrative personnel. Together, the HydroScience team combines diverse skills to accomplish one focused task: *providing strategic water and wastewater solutions*.

Capacity and Resources

HydroScience offers clients a breadth of capabilities typical of a large engineering firm while still delivering the distinct advantages of a smaller, more local firm: close proximity, responsiveness, direct project involvement from senior staff, low overhead, and project team stability.

Each of our four offices are fully equipped to provide all types of engineering services performed by HydroScience. We operate as one company with shared resources, which means that the full resources of the company are available to our project managers in each office. This increases our capacity to perform, increases available bandwidth, and ensures that the most qualified individuals are able to support projects regardless of their location.

HydroScience has a suite of additional specialized services that we can provide in-house on an as-needed basis. Where we need to supplement our team with outside resources, we maintain strong relationships with local subconsultants, which we can utilize for a specific discipline or to fill a specific project requirement.

Condition Assessments. Our experience allows for a comprehensive understanding of the performance of sewer pump stations and other wastewater infrastructure over time, including the lifecycles of mechanical equipment, building materials, structural integrity, corrosion, and settlement. We have in-depth knowledge of the right coatings, pipe materials, valving configurations, control strategies, and operational needs to effectively complete condition assessments. These assessments are completed in enough detail to use for a CIP and to serve the City with the confidence to rely on good and solid information for years to come. Our work will detail the remaining useful life, the risks and consequences of failure, and the various options for rehabilitation or replacement.



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Client, Subconsultant, and Stakeholder Coordination.

Several of HydroScience's staff were once public agency and special district employees, and reinforce the importance and value in client corroboration and stakeholder coordination in executing any given project. We provide our clients with the tools and expertise needed to find and implement streamlined and trustworthy solutions. Our previous clients, listed in the References section, can attest to our accountability and commitment to exceeding their goals and objectives, adhering to budgets and schedules, and presenting deliverables with the highest quality.

Subconsultants

We have included one subconsultant for Structural Engineering. **VE Solutions** is a full-service structural engineering firm located in Sacramento. The firm designs cost-effective engineering solutions for steel, concrete, prestressed concrete, masonry and wood buildings and structures, as well as rehabilitation of existing damaged structures. During its over 20 years in business, VE Solutions has completed more than 300 projects for a wide variety of local and statewide clients. VE and HydroScience have worked together on dozens of pump station and wastewater treatment improvement projects.

Recent, Relevant Project Experience

Our team's qualifications and experience on similar projects are highlighted in the following pages. We describe five pump station assessment and rehabilitation projects, and four WWTP assessment and rehabilitation projects. Each of these projects includes multiple technical aspects that will be important for the City's facilities condition assessment project, as shown in the matrix below.

Client references who can attest to our performance on their projects are listed in the following section. We encourage you to contact them and enquire about our services and professionalism, both during the project and after completion.

Summary of Project Components

	Sewage pump mechanical and hydraulic systems	Concrete corrosion and methods of protection	Electrical and control systems	Wastewater treatment plant system processes and technologies	Wastewater treatment plant mechanical systems	Structural engineering of wastewater system components
PROJECT / CLIENT	TECHNICAL COMPONENTS					
Citywide Lift Station Assessments City of Davis	•	•	•			•
Citywide Lift Station Assessments City of Belmont	•	•	•			•
Sanitary Sewer Lift Station Improvements Phase 5 City of Foster City / Estero Municipal Utility District	•		•			•
Five Sewer Lift Station Upgrades City of Sunnyvale	•	•	•			
Four Sewer Lift Station Upgrades El Dorado Irrigation District	•		•			•
Wastewater Treatment Plant Reliability Improvements Silicon Valley Clean Water, Redwood City, California			•	•	•	•
San Jose-Santa Clara (SJ/SC) RWF Master Agreement for Engineering Services City of San Jose, California	•	•	•	•	•	•
Wastewater Treatment Plant Expansion Design City of Gridley			•	•	•	•
WWTRP Upgrades Project City of St. Helena	•		•	•	•	•

Citywide Lift Station Assessments

City of Davis, California



HydroScience provided an assessment and inventory of the structural, mechanical and electrical components of the City's six sewage lift stations and eight storm water drainage stations. Results from the inventory and assessment were tabularized in a report and then used as the basis of proposed recommended improvements. These recommendations included planning-level cost estimates for incorporation into a Capital Improvement Program (CIP).

HydroScience began by providing standardized historical performance review forms to the City's staff to document existing and past conditions at the sites from a staff prospective. HydroScience then reviewed all existing as-builts before proceeding to the field visits, which included on-site interviews with O&M staff regarding the equipment and condition, structural evaluation of select lift stations, and electrical evaluation of each station.

The report provided site by site assessments and recommendations regarding the pump condition and access, piping, valves, wet well / dry pit condition and access, electrical equipment condition, instrumentation, safety, security, and lighting, as well as system wide recommendations for station replacement and standardization.

Team Members: Bill Slenter, Principal-in-Charge; Brad Friederichs, Structural

Citywide Lift Station Assessments

City of Belmont, California



HydroScience provided an assessment and inventory of the structural, mechanical and electrical components of the City's eleven sewage lift stations. Based on the outcome of the assessment, HydroScience then proposed capital improvements for each lift station and estimated project costs. HydroScience also prepared pump curves and system curves for each pump to help evaluate pump performance.

Results from the inventory and assessment were documented in the Pump Station Assessment and Inventory Report, which formed the basis of proposed recommended improvements. These recommendations included planning-level cost estimates for development by the City Staff into a CIP.

To prepare the CIP and assessments, HydroScience reviewed all existing as-builts and conducted extensive field investigations, which included on-site interviews with O&M Staff regarding the equipment and condition, structural evaluation of each lift station, and electrical evaluation of each station. The final report provided site by site assessments and recommendations regarding the pump condition and access, piping, valves, wet well / dry pit condition and access, electrical equipment condition, instrumentation, safety, security, and lighting, as well as recommendations for improvement and standardization.

A priority list of improvements was prepared to assist the City in expediting projects for the most critical needs. Four lift stations with a construction estimate of approximately \$7M were identified as requiring critical improvements. The remaining lift stations with approximately \$4M in capital improvements were identified as next phase improvements.

Team Members: Eric Petrel, QA/QC; Brad Friederichs, Structural

Sanitary Sewer Lift Station Improvements Phase 5

City of Foster City / Estero Municipal Utility District, California



Eric Petrel has managed the design of upgrades to 23 sewer lift stations in the City of Foster City since 1998. HydroScience was selected for the Phase 5 project, which involved the rehabilitation of nine wastewater lift stations and the relocation of a tenth. Each lift station improvement project included the replacement of the control panel, pumps, associated piping in the lift station, addition or replacement of the standby generator and automatic transfer switch, and relocation of PG&E meters. Eric worked with the City to develop standard lift station design features, which he has implemented on each of the subsequent projects. Typical lift station improvements include:

- Removing failing wet well coating and replacing with a new polyurethane two part coating to protect concrete against hydrogen sulfide attack
- Developing flow control options, bypass, and line stopping requirements to prevent overflows
- Developing and installing standardized pump control panels and standby generators

In some cases, lift stations were relocated from easements to the roadway, and sewers realigned as required. Special shoring requirements were stipulated to minimize settlement risk in challenging Bay Mud conditions.

Team Members: Eric Petrel, Project Manager; Curtis Lam, Principal-in-Charge; Tinh Le, Electrical, I&C; Brad Friederichs, Structural

Five Sewer Lift Station Upgrades

City of Sunnyvale, California



HydroScience provided condition assessment, planning, and design for the rehabilitation of five aging sewer lift stations within the City of Sunnyvale. This project was part of the City's ongoing sanitary sewer maintenance program to improve energy efficiency and reliability of the various facilities and reduce spill risk.

HydroScience worked with City maintenance and engineering staff to develop a standard design for the upgrades. Steps included a comprehensive condition assessment of each lift station, preparation of a Preliminary Design Report in collaboration with City staff, and detailing of the designs. Condition assessments

targeted compliance with current electrical codes, OSHA standards, SCADA compatibility, and industry design standards for efficiency and cost-effective operation. Recommendations for improvements at each station were subsequently developed to target identified deficiencies. Recommended upgrades varied from station to station depending upon their exiting physical condition and the cost-effectiveness of modifications to the existing facilities.

HydroScience reviewed the recommendations with the City and proceeded with the design of the project. The rehabilitation of the sewer lift stations included spring assisted valve vault lids with safety grates, flow meters, sewer force main bypass connections, epoxy lining of the wet wells, replacement of submersible pumps to conform to the standard pump manufacturer, installation of flush valves, and relocation and replacement of the electrical controls. SCADA systems at each of the five sewer lift stations were also upgraded to provide more efficient remote monitoring and control to optimize operation of the City's lift stations.

Team Members: Bill Slenter, Principal-in-Charge

Reference: Mansour Nasser, Water & Sewer Division Manager, (408) 730-7578, mnasser@sunnyvale.ca.gov

Four Sewer Lift Station Upgrades

El Dorado Irrigation District, El Dorado County, California



HydroScience prepared four separate facility evaluations, predesigns, and designs for the rehabilitation/replacement of four sewer lift stations for EID, and supported both the bidding and construction phases. Each project involved significant rehabilitation and replacement elements on space-restricted properties with sensitive neighbors. The projects utilized standard design features, which HydroScience developed for the District on prior projects. Complex and often competing objectives were balanced through creative approaches developed in close collaboration with EID engineering, operations and maintenance staff.

All lift stations include new submersible pumps ranging up to 70 hp, new wet well or existing wet well refurbishment, standby generators up to 175 kW in sound attenuation enclosures, new electrical power and control systems, PLC and SCADA improvements, odor control systems, security and access gates, visual screening from neighbors, new utility buildings or refurbishment of existing ones, and a suite of design provisions to provide simplified and safer O&M and improved flexibility. Bid packages included carefully sequenced bypassing plans and outage requirements to ensure that bidding contractors included the appropriate costs for managing spill and unplanned outage risk during construction.

Team Members: Bill Slenter, Principal-in-Charge; Brad Friederichs, Structural

Wastewater Treatment Plant Reliability Improvements

Silicon Valley Clean Water, Redwood City, California



HydroScience served as engineer-of-record on a design-build team for this project which provided plant reliability improvements for Silicon Valley Clean Water's 24 MGD WWTP in Redwood Shores, California. Work included upgrading the aeration basin blower system to high-speed turbo blowers with all new distribution piping and control valves, correcting basin flow split issues starting with a hydraulic profile study, installing a fan press solids dewatering system and conveyors, adding backup water for generators, and replacing their granular media filter backwash pumps.

Replacement of the backwash pumps was particularly challenging given the large size of the pumps (8,000 gpm), limited shutdown window available, their location in a below-grade gallery, and the custom large-diameter discharge manifold that needed to be replaced to accommodate new pumps. HydroScience worked with a high-precision LIDAR point cloud scan of the existing mechanical components and developed improvements design using 3D drafting techniques, coordinated with the steel pipe fabricator, and refined a design approach that facilitated accurate field fit-up and minimized downtime required for construction.

The D/B project included a highly collaborative process with plant staff. One of the key features of our approach was the partnering atmosphere, which we established at the project kickoff. We front-loaded project planning and communication to confirm design details and capture operations and maintenance preferences early on to help streamline implementation during the construction phase. Client collaboration included a series of all-hands workshops to review findings, select preferred design alternatives, gather feedback on design deliverables, and coordinate construction activities. Installation and testing of improvements were performed in close coordination with plant operations and maintenance staff to sequence the work around ongoing operations while facilitating completion of the contract requirements.

Team Members: Bill Slenter, Principal-in-Charge; Brad Friederichs, Structural

San Jose-Santa Clara (SJ/SC) RWF Master Agreement for Engineering Services

City of San Jose, California



HydroScience provided on-call planning, evaluation, detailed design, and construction support services under a multi-year Master Services Agreement (MSA) with the City of San Jose. The Regional Wastewater Facility (RWF) is a 167 MGD secondary and tertiary wastewater treatment plant serving 1.4 million residents and businesses across eight cities in Santa Clara County. The RWF discharges over 100 MGD of tertiary effluent to the South San Francisco Bay while also delivering over 15,000 AFY of recycled water to over 900 customers in Santa Clara County.

3W Upgrades. HydroScience designed the replacement of the existing No. 3 Water (3W) pumps. This upgrade to an existing aging facility provides critical plant utility water to the entire facility. The pumps are in a below-grade equipment gallery with challenging access and space issues. The most suitable replacement pumps have a vertical discharge as opposed to the existing horizontal discharge pumps, necessitating reconfiguration of the 20-30 inch discharge piping in a tight space. An energy saving assessment conducted by HydroScience identified an opportunity to improve the turndown of this 700 – 14,000 gpm (35 psi) facility through the addition of a third low flow pump, and HydroScience designed provisions for this third pump into the system.

Pond A18 South Gate Levee Repair Project. HydroScience performed a condition assessment, provided planning-level recommendations, and provided a detailed design for the repair and reinforcement of levee embankments and an inlet gate structure owned by the RWF which is located adjacent to their RWF effluent outfall channel to the Bay. The South Gate Structure is one of two gate structures providing flow control between the adjacent Pond A18 and the Artesian Slough and San Francisco Bay and is located on the levee forming the southwest side of the pond. Tidal action and weather had caused erosion to the levee embankments, scouring of the Bay floor in front of the structure which was undermining the structure supports, and damage to the access road on top of the levee. The condition assessment included a geotechnical investigation, structural evaluation of the structure, mechanical evaluation of the gates, recommendations, and cost estimates. Then HydroScience prepared detailed plans and specifications and provided engineering services during construction for the repairs, which included steel sheet piles at the levee toes, whalers, tie rods, and roadway repair.

South Bay Water Recycling (SBWR) Pump Station HVAC Project. SBWR is a division of the City of San Jose that is responsible for engineering related to the distribution of recycled water throughout the City's service area. HydroScience provided evaluation and design to improve ventilation in two existing remote recycled water booster pump stations, known as Pump Station 5 and Pump Station 8/11, and to reduce the occurrence of variable frequency drive (VFD) failures associated with the large booster pumps. HydroScience performed an evaluation which included recommendations and planning-level costs, and then prepared detailed bid plans and specification for construction of the improvements.

The following summarizes other projects that HydroScience has completed under this MSA:

- Condition assessment and evaluation of an outfall channel bridge that includes critical effluent monitoring instrumentation, and nearby gates and outlet structures
- Condition assessment of walkway bridges over a primary clarifier effluent channel
- Design of thermal mass flow meters for three points of demand in the treatment plant
- Condition assessment of deteriorating earthen berms and a concrete inlet structure at a large emergency overflow basin
- Design of a replacement outdoor lighting system for the nitrification clarifiers facility which improved operator safety

Team Members: Bill Slenter, Principal-in-Charge

Reference: Lorenzo King, Senior Engineer, City of San Jose, (408) 635-2014, lorenzo.king@sanjoseca.gov

Davis Wastewater Treatment Plant Upgrade Projects

City of Davis, California



HydroScience served as lead engineer for design of improvements to the existing WWTP. The goal of this project was to improve plant performance and reliability. Our project team worked closely with City staff through a series of site visits and detailed workshops to prioritize and optimize the scope of improvements, balancing project cost with long-term performance objectives. Improvements subsequently designed and constructed include:

Influent Pumping. Replaced aged and oversized 4,800 gpm dry pit solids-handling influent pumps in a gallery with modern, efficient immersible screw impeller pumps. Reconfigure suction piping and valves to reduce dry pit flood risk. Replace obsolete VFDs in existing MCC with new units while minimizing facility interruption. The upgraded facility operates at increased efficiencies throughout an improved flow turndown range while also minimizing the incidence of clogging.

Influent Channel Hydraulics and Bar Screen Improvements. Reconfigure existing oversized influent channels to improve scour velocities, reduce odors and corrosion, repair existing degraded concrete, and facilitate installation of two new parallel bar screens.

Grit and Primary Clarifier Improvements. Completely rebuild the grit dewatering facility to address significant corrosion, modify influent gates, scum collectors, and clarifier mechanisms to address corrosion and performance issues, and replace coatings.

Innovative approaches were developed to maintain treatment capacity while minimizing costly bypass facilities. Drawing upon staff experience and knowledge, HydroScience clearly defined contractor limitations and operational responsibilities to minimize risk to permit compliance while providing adequate contractor flexibility to propose innovative and cost-effective means and methods.

Team Members: Bill Slenter, Project Manager; Curtis Lam, Principal-in-Charge

Wastewater Treatment Plant Expansion Design

City of Gridley, California



HydroScience provided design and permitting services for the City of Gridley WWTP Expansion Project. The \$2.5M upgrade project doubled the capacity of Gridley's existing aerated pond treatment system to 1.7 million gallons per day (MGD) average flow and 5.7 MGD peak wet weather flow. Because construction funds were limited, HydroScience selected an approach that increased the treatment rate without constructing new ponds. The upgrade provided the additional treatment capacity needed to approve new residential, commercial and industrial developments in the City. The upgrade also improved effluent quality in anticipation of a stricter permit.

HydroScience's upgrade design consisted of a new headworks structure utilizing a spiral self-cleaning fine screen, aeration system upgrades consisting of new surface aerators and solar-powered circulators, upgraded yard piping to accommodate the higher flows, and upgrades to power and control systems. In order to control project costs, all upgrades were performed on the existing single-train treatment process. These upgrades were designed so that they could be constructed while the plant continued to operate. HydroScience also helped lead the permitting process.

Team Members: Bill Slenter, Project Manager; Curtis Lam, QA/QC

WWTRP Upgrades Project

City of St. Helena, California



The City of St. Helena was issued a CDO containing effluent limitations the City could not reliably obtain with their existing pond treatment plant. This resulted in the RWQCB issuing the City with a Time Schedule Order requiring the City to complete a number of steps with the overall intent of upgrading the WWTRP process to a level that would result in the WWTRP reliably meeting its effluent discharge limitations.

In April 2019, the City commissioned HydroScience Engineers to develop a Conceptual Design Report (CDR) to analyze treatment alternatives that would comply with the new NPDES effluent discharge limitations, while also modernizing the facility's treatment process. The CDR examined City provided flow and loading

data as well as current operations at the City's WWTRP in order to characterize the existing plant's conditions and identify treatment plant design criteria.

The recommendations in the CDR identified that the preferred WWTRP upgrade alternative is a packaged MBR treatment system. The WWTRP will maintain its permitted capacity of 0.5 MGD with the flexibility to operate the plant at a peak day hydraulic capacity of 1.33 MGD (reduced from 6 MGD). This reduction in flow will result in tens of millions of dollars in cost savings when combined with repurposing four of the existing WWTRP ponds for use as flow equalization. The new treatment plant improvement is modular in its design so that the City can cost-effectively expand the new system to meet anticipated buildout flows, if necessary. The RWQCB accepted the CDR findings without comment.

Project elements included:

- Addition of coarse and fine screening
- New influent pump station
- New 1.3 MGD MBR wastewater treatment plant
- Repurposing of four of the existing ponds for use as flow equalization and pretreatment
- Upgrades to the effluent discharge and disinfection system
- Electrical and SCADA upgrades to accommodate the project
- Site and grading improvements
- Sound attenuation

HydroScience also prepared the environmental documentation and supplemental project report for the City to obtain external funding from the USDA. HydroScience also coordinated with the RWQCB to help prepare a new NPDES permit for the proposed facility. The new NPDES permit will help the City get out of its existing Cease and Desist Order, and reflects the plant upgrades that are underway.

Additionally, the City is initiating a recycled water project that will reuse effluent generated by the WWTRP project. This project will allow recycled water to be used at local parks, schools, and selected other properties for approved Title 22 uses. The use of recycled water will also offset potable water use and free up potable water for other purposes.

The WWTRP project will be advertised later this year. Construction is expected to be completed by end of 2022. The total project cost estimate is approximately \$16M.

Team Members: Curtis Lam, Project Manager; Jason Crowley, Project Engineer; Bill Slenter, QA/QC; Thanh Le, Electrical Engineer; Brad Friederichs, Structural

Reference: Erica Ahmann Smithies, Former Director of Public Works and now Director of Public Works for the City of American Canyon, (707) 647-4366, esmithies@cityofamericancanyon.org

SECTION E

E. REFERENCES

One of HydroScience's strengths is our solid, long-term relationships with our clients, which often result in continued project opportunities. We are proud of these relationships and encourage the City to speak with the references included here about their experiences with HydroScience during and after completion of their projects.

We have included references for three of the projects described in Section D. They are listed by title here, along with the page number of the description in the previous section.

WWTRP Upgrades Project (see page 24)

City of St. Helena, California

Erica Ahmann Smithies

Former Director of Public Works and now Director of Public Works for the City of American Canyon

(707) 647-4366

esmithies@cityofamericancanyon.org

San Jose-Santa Clara (SJSC) RWF Master Agreement for Engineering Services (see page 22)

City of San Jose, California

Lorenzo King

Senior Engineer

City of San Jose

(408) 635-2014

lorenzo.king@sanjoseca.gov

Sunnyvale Five Sewer Lift Station Upgrades (see page 20)

City of Sunnyvale, California

Mansour Nasser

Water & Sewer Division Manager

(408) 730-7578

mnasser@sunnyvale.ca.gov

SECTION F

PROPOSED BUDGET

City of Willows

Fee Proposal for the Facilities Condition Assessment for Sewer Collection System Lift Stations and Wastewater Treatment Plant Major Equipment
HydroScience Engineers

April 28, 2021

Task Description	Labor Classification	Curtis Lam Principal-in-Charge Prin	Eric Petrel Project Manager E-IX	Bill Slenter Treatment Lead Prin	Jason Crowley Project Engineer E-IV	Thinh Le EIC E-VI	Hours	Fee	VE Solutions	Travel	Expense Subtotal with markup	Total Fee
	Hourly Rate	\$255	\$245	\$255	\$195	\$215						
I Sewer Lift Station Condition Assessments		6	66	0	100	46	218	\$47,090	\$0	\$1,500	\$1,650	\$48,740
Kickoff Meeting/Field Visits (2 days, total)		2	16		16	8	42	\$9,270		\$1,500	\$1,650	\$10,920
Desktop Review and Evaluation			20		40	20	80	\$17,000				\$17,000
First Draft TM		2	24		24	12	62	\$13,650				\$13,650
Second Draft TM		1	4		12	4	21	\$4,435				\$4,435
Final TM		1	2		8	2	13	\$2,735				\$2,735
II Wastewater Treatment Plant Condition Assessment		5	30	52	80	50	217	\$48,235	\$8,500	\$1,000	\$10,450	\$58,685
Field Visit (1 Day)			8	8	8	8	32	\$7,280	\$1,500	\$1,000	\$2,750	\$10,030
Desktop Review and Evaluation			8	12	20	20	60	\$13,220	\$5,000		\$5,500	\$18,720
First Draft TM		2	8	20	24	16	70	\$15,690	\$2,000		\$2,200	\$17,890
Second Draft TM		2	4	8	16	4	34	\$7,510				\$7,510
Final TM		1	2	4	12	2	21	\$4,535				\$4,535
III Project Management and Meetings		0	20	6	12	12	50	\$11,350	\$0	\$0	\$0	\$11,350
Project Management (4 mos @ 2 hrs/mo)			8				8	\$1,960				\$1,960
First Task I - Draft TM Virtual Review Meeting			3		3	3	9	\$1,965				\$1,965
Second Task I - Draft TM Virtual Review Meeting			3		3	3	9	\$1,965				\$1,965
First Task II - Draft TM Virtual Review Meeting			3	3	3	3	12	\$2,730				\$2,730
Second Task II - Draft TM Virtual Review Meeting			3	3	3	3	12	\$2,730				\$2,730
TOTAL		11	116	58	192	108	485	\$106,675	\$8,500	\$2,500	\$12,100	\$118,776

Notes:

All charges will be based on HydroScience's 2021 Standard Billing Rate Schedule.

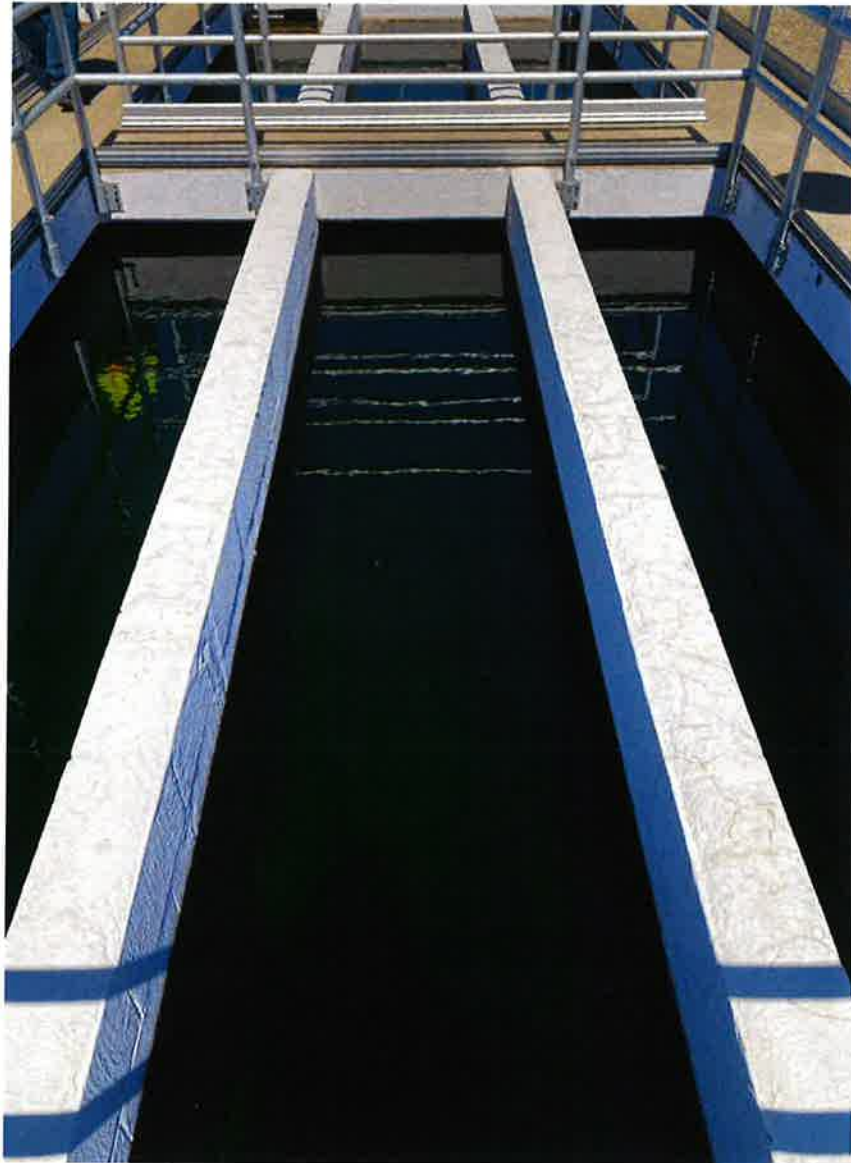
All expenses will be billed at cost plus 10%.

HYDROSCIENCE ENGINEERS, INC.**2021 Rate Schedule****Rates are subject to increase 3% annually**

LABOR CLASSIFICATION	HOURLY RATE
Principal	\$255
Engineer IX	\$245
Engineer VIII	\$235
Engineer VII	\$225
Engineer VI	\$215
Engineer V	\$205
Engineer IV	\$195
Engineer III	\$185
Engineer II	\$175
Engineer I	\$160
Engineering Aide	\$95
Construction Professional VI	\$175
Construction Professional V	\$165
Construction Professional IV	\$155
Construction Professional III	\$145
Construction Professional II	\$135
Construction Professional I	\$125
Cross Connection Control Specialist	\$115
CAD Manager	\$135
CAD Designer I	\$115
Marketing Professional	\$105
Administrative II	\$95
Administrative	\$80

Note: Hourly billing rates include postage and telephone charges that are normal to the work authorized. Other direct costs for travel, reproduction, mail service, outside services, etc. will be invoiced at 110 percent of the actual cost. Rates are subject to increase 3% annually.

HydroScience is a civil engineering firm that plans, designs, and manages the construction of water, wastewater, and recycled water projects. With offices in Berkeley, Sacramento, Concord, and San Jose, we understand and address the complex water and wastewater needs of Northern California.



HydroScience 

741 Allston Way
Berkeley, CA 94710
(510) 540-7100

**PROPOSAL FOR
FACILITIES CONDITION ASSESSMENT FOR SEWER
COLLECTION SYSTEM LIFT STATIONS AND
WASTEWATER TREATMENT MAJOR EQUIPMENT**

Willows
CALIFORNIA

April 28, 2021

Submitted By:

NEXGEN Utility Management
4010 Lennane Drive
Sacramento, CA 95834





**Proposal for Facilities Condition Assessment for Sewer Collection System Lift
Stations and Wastewater Treatment Major Equipment**

TABLE OF CONTENTS

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Appendix- Team Resumes.....	22

NEXGEN UM, Inc
4010 Lennane Drive
Sacramento, CA 95834



April 28, 2021

Mr. Royce Cunningham, P.E.
Community Development Services Department
City of Willows
201 N Lassen Street
Willows, CA 95988

Dear Mr. Cunningham:

**Subject Proposal for Facilities Condition Assessment for Sewer Collection
System Lift Stations and Wastewater Treatment Major Equipment**

NEXGEN Utility Management, Inc. is pleased to submit this Proposal for Facilities Condition Assessment for Sewer Collection System Lift Stations and Wastewater Treatment Major Equipment.

NEXGEN is a niche civil engineering firm based in Sacramento. Our staff of 18 technologists, engineers and construction managers provide engineering solutions to smaller agencies in the Central Valley and Sierra Foothills.

The City has requested a specialized consulting firm to perform a condition assessment of major components of its wastewater collection and treatment system. This is Nexgen's specialty. We have developed industry leading approaches for assessing lifespan of aging wastewater assets, prediction of risk of failure, and costs to rehab and repair. We will provide the City a defensible and accurate capital improvement program that will serve as the backbone for the City's asset management planning.

Our team is led by Joe DiGiorgio, P.E. Joe has over 35 years of experience. He has served as design manager for major WWTP upgrades for the cities of Lincoln (\$40 million) and Dixon (\$22 million). He has served as construction manager for the same projects and recently completed a 2 year construction project for the Georgetown Divide PUD WTP. He has designed repair for sewer pump station rehabilitation projects in Colusa, West Sacramento, and Auburn. As such, Joe is uniquely qualified to manager this project. He is assisted by a team of senior mechanical, structural, and electrical engineers who have worked on the same projects together for over 20 years.

We successfully helped the City renew its NPDES permit in past permitting cycles. We look forward to working for the City again on this important project. Thank you again for your consideration.

NEXGEN Utility Management



Dan Rich, P.E.

Vice President

(916) 779-7301 | drich@nexgenum.com | www.nexgenum.com

Main Office Address: 4010 Lennane Drive, Sacramento, CA 95834

B. PROPOSED TEAM AND STAFFING



Our proposed team is shown below:



Royce Cunningham,

PRINCIPAL IN CHARGE

Dan Rich, P.E.

Project Manager

Joe DiGiorgio, P.E.

L

**Task 1 - Sewer Lift
Stations Condition
Assessment**

**Joe DiGiorgio, P.E.
Mark Cocke, P.E.
Dan Rich, P.E.
Rachel Schonwit
Brad Fredreichs, PE
Chris Bressi
Julia Richardson, EIT
Jeremy Pollet, P.E.
Matt Boring
(ControlPoint)**

**Task 2- WWTP Condition
Assessment**

**Joe DiGiorgio, P.E.
Mark Cocke, P.E.
Dan Rich, P.E.
Rachel Schonwit
Brad Fredreichs, PE
Chris Bressi
Julia Richardson, EIT
Jeremy Pollet, P.E.
Matt Boring
(ControlPoint)**

**Task 3- Project
Management &
Meetings**

**Joe DiGiorgio, P.E.
Jeremy Pollet, P.E.
Dan Rich, P.E.**

B. PROPOSED TEAM AND STAFFING



Project Team Bios (Complete Resumes Provided as Appendix)

Joe DiGiorgio, P.E.

Project Manager,

Joe has more than 35 years of experience as Project Engineer, Project Manager, and Construction Manager for wastewater treatment and conveyance. He has primarily been involved in field investigations and the design and construction of pipelines and facilities improvements for complex water and wastewater projects. He has designed WWTPs for Auburn, Lincoln, Merced, Colusa, Dixon. Joe has served on ratepayer advisory and Regional Board committees where he provided technical and educational support to provide affordable permit compliance solutions, acceptable to all parties. Recently he served as Resident Engineer and Construction Manager on two large water and wastewater treatment plant expansions for the cities of Dixon (\$24 million construction) and Georgetown Divide PUD (\$11 million construction). He is currently serving as project manager for the design of new solids handling facilities for the City of Auburn (\$5 million construction) and several sewer pump station upgrades (\$0.6 million). Joe's combined field and design experience are difficult to replicate.

Dan Rich, P.E.

Principal in Charge

Dan has 28 years of experience in planning, modeling, designing, and evaluating processes for wastewater and sludge treatment. He specializes in treatment process development, process modeling and design, performance evaluation, trouble-shooting, and NPDES compliance. He has served as Project Manager for over twenty wastewater master plans and designs for cities across California.

Mark Cocke, P.E.

Senior Engineer

Mark has 35 years of wastewater, water and stormwater permitting, planning and design experience. Prior to joining NEXGEN eight years ago he was a senior engineer at the City of Woodland where he managed the City's asset management program.

Chris Bressi

Cost Estimating

Chris has 35 years of construction management and inspection experience. First with the City Galt, City of Auburn, and the last 10 years serving as NEXGEN's construction and cost estimating lead. Chris has managed over \$80 million in water and wastewater construction over his career and served as the CM/RI for

B. PROPOSED TEAM AND STAFFING



the last construction upgrades (12 million each) for Auburn's WWTP and dozens of pipeline and pump station replacements around the City.

Subconsultants

Brad Frederichs, PE

Structural Engineer

Brad with VE Solutions has been NEXGEN's structural engineer for all our design projects. Brad has designed large water and wastewater structures serving Auburn, Lincoln, Davis, Merced, Nevada County, Stockton East Water District, Jackson Rancheria, and others.

ControlPoint Engineering *(Electrical and Controls)*

Jeremy Pollet PE, Matt Boring, and Jason Foster from ControlPoint have completed SCADA designs and programming for WWTPs across Northern California and Nevada including those serving Tracy, Auburn, Stockton East Water District, Dixon, City of Reno, Lake Wildwood, Lincoln, Placer County SMD1, NTPUD. ControlPoint does electrical and controls designs for all NEXGEN Projects.

C. PROJECT UNDERSTANDING AND APPROACH

Overall Project Understanding and Project Approach

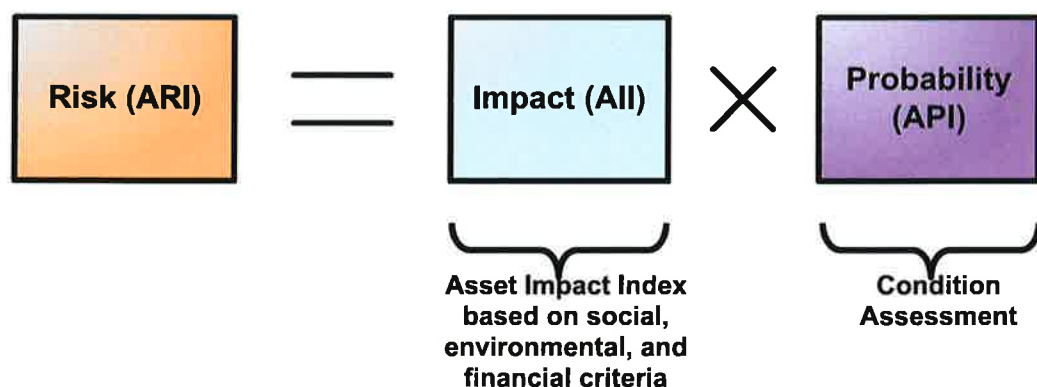
The City is interested in a comprehensive condition assessment of the five (5) collection system lift stations as well as the major equipment at the WWTP with the goal to properly fund a long-term CIP based on current and anticipated future conditions. Nexgen is uniquely suited for such Projects by having a core staff of experienced design and construction engineers, as well as expertise developed by authoring industry leading public works Asset Management software. The need to continually update and improve implementation of the asset management software requires us to develop close relationships with both planning and operations staff to provide learning and tools to develop long term, data-driven CIPs.

Nexgen, along with our electrical and controls subcontractor Control Point, will perform on-site evaluations of the pump stations and WWTP equipment that will include visual inspection, observation, and documentation. This will include working with City staff to gather data and/or measurement of operational parameters, such as voltage, sound, pressures, temperature of certain equipment, to be sure they have not varied outside of design ranges.

Based on our observations during the pre-proposal tour we do not expect to require significant input or field work from concrete/structural, or corrosion specialists. We do expect to interview City operational staff to obtain their input and recommendations based on their direct experience. Key operational information will include typical hours of operation of equipment as well as repair histories, and performance concerns.

We will tabulate the field and operational information, use manufacturer's information, and assess availability of service and parts, as well as our Asset Management (AM) experience with other agencies to estimate the useful life of all key assets.

Another key CIP prioritization and planning criteria is embodied in what is generally referred to as the Asset's Risk Index (ARI), which connects the consequence (impact) to the probability of failure. Every asset will be assigned a unique impact score and probability score:



The risk factors will include impacts related to regulatory compliance, costs, and health and safety of both City staff and the public.

C. PROJECT UNDERSTANDING AND APPROACH

We will develop costs to address identified deficiencies as R&R projects. We will conduct review meetings (a total of four) to present the R&R projects and associated costs and solicit City feedback on the scope and timing of the R&R projects. The meetings will focus on development of the implementation schedule based on project size, criticality, and cash flow impact.

We will use industry-leading NEXGEN AM Software to provide the City a transparent and consistent means to evaluate and prioritize its CIP

Nexgen will develop the CIP prioritized on the assets' risk scores. The asset's risk score changes over time as the asset (a pipe for instance) continues to degrade. As the example shows below, the risk score (ARI) increases over time until a CIP is scheduled to reset the assets' condition and score. A number of "what-if" scenarios will be developed with the City showing how scheduling of CIP impacts its relative risk.



Nexgen AM software provides CIP planning data

Scope of Work

Is essentially described in the cost estimate spreadsheet, along with the estimated level of effort for each task. This section just adds some particulars and clarification to the listed tasks and subtasks.

Task 1- Lift Station Condition Assessment As shown in the picture below, we find the pump stations wet well concrete to be in good condition (the picture below is the worst condition observed). We noted pipes have been replaced piecemeal and the isolation valves are typically located in the wet well (a confined space) which makes servicing more difficult. In general, we find that the pump controls are outdated and in need of replacement. We will develop further, more specific R&R project recommendations based on review of data collected and interviews with City staff.



Concrete corrosion is minimal in the pump stations wet wells

C. PROJECT UNDERSTANDING AND APPROACH



Control Point engineer inspecting outdated Pump station controls

We understand one Pump Station is located inside a different service district, that may or may not fund their part of the assessment. Their cost, if performed concurrent with other pump station evaluations, is essentially 1/5th of the total for Task 1 and may be separated out if funding is unavailable.

Task 2- WWTP Condition Assessment

At the WWTP we will work closely with the Contract operations staff to identify issues with major equipment, especially those items that affect cost of operations and worker safety. One of the key issues is availability of spare parts for instrumentation (as being discussed in the picture below).



Operations staff discussing servicing of instrumentation

C. PROJECT UNDERSTANDING AND APPROACH

There is some limited structural corrosion noted, but again it is not expected to require on-site expertise to evaluate. We understand there are no regulatory issues to be directly assessed at the WWTP, although we do understand future development may increase flows over the next decade.



**Limited corrosion
(roof beams) on
WWTP structures**

Task 3- Project Management and Meetings Nexgen will attend four progress meetings with City staff to discuss findings and funding scenarios to develop the CIP. We will also attend a Council meeting to present the final report to the Council and citizens.

D. QUALIFICATIONS AND EXPERIENCE



NEXGEN is a niche civil engineering firm based in Sacramento. Our staff of 18 engineers, technical staff, and construction managers provide permitting and engineering solutions to smaller agencies in the Central Valley and Sierra Foothills.

Design Expertise

We have designed major upgrades and expansions to the following wastewater treatment plants:

- ✓ 2009 City of Auburn UV Disinfection (\$9 million)
- ✓ 2010 - 2020 City of Auburn Sewer Pump Station Upgrades (\$.6 million each year)
- ✓ 2012 City of Woodland Solids Handling Improvements (\$2 million)
- ✓ 2016 City of Colusa WWTP Upgrades (\$12 million)
- ✓ 2016 City of Auburn Nitrogen Removal Upgrades (\$12 million)
- ✓ 2016 City of Dixon WWTP Improvements (\$24 million)
- ✓ 2018 Jackson Rancheria WWTP Upgrades (\$3 million)
- ✓ 2020 City of Auburn Solids Handling Improvements (\$5 million)
- ✓ 2020 City of Colusa Recycled Water Improvements (8 million)
- ✓ 2020 City of West Sacramento Pump Stations (\$1.5 million)


D. QUALIFICATIONS AND EXPERIENCE

Condition Assessment Experience


Our recent history of public works engineering for nearby communities is summarized below.

Client	Design and Cost Estimating	Permit Renewal and Negotiation	Water Supply Planning	Public Outreach	SRF Loan and Grant Funding	Hydraulic Modeling	Prepare Master Plans	Reclamation	Stormwater Permitting	Condition Assessment	Agricultural Studies
City of Woodland	•	•	•	•	•	•	•	•	•	•	•
City of Auburn	•	•		•	•	•	•		•	•	
Nevada County CSDs	•	•	•	•	•	•	•	•	•	•	
City of Willows	•	•	•		•	•	•			•	•
City of Merced	•	•	•	•		•	•	•		•	•
City of Biggs	•	•				•	•	•			•
City of Dixon	•	•		•	•	•	•	•			
City of Lincoln	•	•			•	•	•	•	•	•	•
City of Colfax	•	•			•						
City of West Sacramento	•	•		•		•	•				
City of Wheatland	•	•		•		•	•	•			
Jackson Rancheria		•				•	•	•		•	

E. REFERENCES

Project:	City of Auburn WWTP and Pump Station Design and Condition Assessments	
Description	 <p>NEXGEN prepared the City of Auburn's Wastewater Master Plan, rate and fee studies, and design various improvements to the City's sewer collection system and tertiary wastewater treatment plant. In 2010, our team completed construction management for Auburn's \$7 million tertiary treatment, UV disinfection, and nitrogen removal improvements. Our team designs and oversees about \$1,000,000 per year of sewer-related improvement projects each year.. We design upgrades to one of the City's 11 sewer pump stations each year. In 2016, NEXGEN designed a \$10 million upgrade to the City's WWTP to enhance nutrient removal and increase plant capacity for additional 1,000 homes. The project a new oxidation ditch secondary treatment process with anoxic zones, new new course and fine screens, and new RAS pump station, and new SCADA system. In 2020, NEXGEN designed new solids handling processes the WWTP. The project replaces the older belt filter press with a new screw press and dewatering building. NEXGEN also completed and submitted all documentation to secure SRF funding for the project</p>	
Staff Responsibilities	<p>Dan Rich, P.E.: Principal in Charge Joe DiGiorgio, P.E.: Design Engineer and Project Manager Jeremy Pollet and Matt Boring- Electrical and SCADA Mark Cocke, P.E.: Design Engineer Chris Bressi: Construction Management and Inspection</p>	
Dates	2003 – present.	
Reference	<p>Chris Ciardella., P. (530) 823-4211 x 134 cciardella@auburn.ca.gov City of Auburn 1225 Lincoln Way, Room 3 Auburn, CA 95603</p>	


E. REFERENCES

Project:	City of Woodland Treatment Plant Design and Condition Assessments
Description	 <p>NEXGEN has been the City of Woodland's on-call wastewater consultant for the last 15 years and has completed dozens of permitting, planning, and design projects at their wastewater plant.</p> <p>In 2015, we designed and managed the construction of significant upgrades to the City's 120-acre pond system (pictured). The project involves pumping waste sludge into facultative sludge lagoons that utilize algae grown in adjacent basins to provide aeration to the lagoons. Three 10-acre lagoons were cement and lime treated to "hardbottom" the basins. On any given year, one basin is loaded, one basin is digesting, and one basin is solar drying. The dried material is tested for pathogens, certified as Class A material and either used as alternative daily cover at the nearby landfill or land applied as a soil amendment. Every 5 years Nexgen renews the City's NPDES permit (3 times over the last 15 years). The City is in full compliance with its permit. Nexgen also completed all the Title 22 permitting and recycled water permitting so the city could use the treated water on parks and for industrial cooling.</p>
Staff Responsibilities	<p>Dan Rich, P.E.: Project Manager, Lead Design Engineer Mark Cocke, P.E.: Design Engineer, Jeremy Pollet and Matt Boring, electrical and SCADA Melissa Lee, P.E.: SRF Funding Lead, Permitting Lead Chris Bressi: Construction Management</p>
Dates	(2005 – present).
Reference	<p>Brent Meyer P.E., City Engineer and Community Dev Director (530) 661-5947 brent.meyer@cityofwoodland.org City of Woodland 300 First Street Woodland, CA 95695</p>

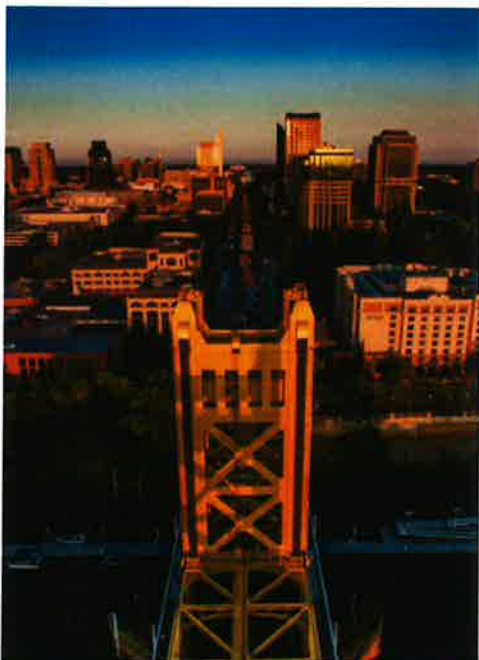
E. REFERENCES

Project:	City of Colusa Wastewater Design and Condition Assessment
Description	<div data-bbox="407 296 1360 764">  </div> <p>Our team prepared the City of Colusa Report of Waste Discharge for the renewal of the City's NPDES permit, and completed various studies in support of their wastewater system improvements. We prepared the city of Colusa 2007 Wastewater Master Plan which identified \$20 million in required upgrades.</p> <p>We designed tertiary improvements to allow the treated water to be recycled on agricultural areas to the east of the plant. We are also completing a solids handling and aeration system upgrade at the WWTP.</p> <p>In 2014 we prepared the Report of Waste Discharge for the NPDES permit. We also assisted the City in de-designating its receiving water from municipal water uses, allowing relaxed effluent limits and avoiding expensive upgrades.</p> <p>In 2015 we completed all SRF applications and reports and secured \$8 million in disadvantaged community grants plus low interest loans to fund \$7 million in sewer and plant improvements.</p> <p>In 2019 we designed new facilities to allow the city to eliminate its NPDES discharge and instead seasonally store tertiary effluent and land apply it on adjacent farmland. We designed a new 60 million storage basin, effluent pump and irrigation, stormwater receiving station and other solids handling improvements to allow the material to be dried, testing and land applied to nearby farmland as a soil amendment</p>
Staff Responsibilities	<p>Dan Rich, P.E.: Project Manager, Lead Design Engineer Joe DiGiorgio, P.E., Mark Cocke, P.E.: Design Engineer, SRF Funding Documentation Melissa Lee, P.E.: SRF Funding Lead, Permitting Lead Jeremy Pollet and Matt Boring, electrical and controls engineering.</p>
Dates	<p>(2007 – present) .</p>
Reference	<p>Jesse Cain, City Manager, (530) 458-4740 citymanager@cityofcolusa.com City of Colusa 425 Webster St. Colusa, Ca 95932</p>

E. REFERENCES

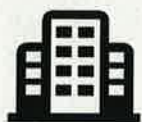
Project:	Jackson Rancheria Wastewater Treatment Plant Upgrades Design and Condition Assessment
Description	 <p>Our team prepared the Jackson Rancheria Master Plan and designed associated WWTP improvements. The Jackson Rancheria is essentially a stand alone City with 1,300 employees, a casino with several restaurants, a hotel, RV park, and various businesses. The Rancheria owns and operates a tertiary WWTP. All treated water is stored and recycled on landscaping or disposed in sprayfields.</p> <p>We recently completed design and construction of a new headworks (pumping, screening, odor controls) to replace an antiquated system that would periodically fail and emit odors into the casino. The project also included new alkalinity feed system, upgrades to SCADA, and an emergency storage tank and pumping system.</p> <p>We are currently designing new waste solids storage and drying facilities that will produce Class A Exceptional Quality compost that can be applied on ranchland operated by the Rancheria.</p>
Dates	(2012 – present).
Staff	Dan Rich, Melissa Lee, Joe DiGiorgio, Jeremy Pollet, Matt Boring, Rachel Schownit,
Reference	<p>Don Maloon, Wastewater Superintendent Tribal Government Jackson Rancheria 12222 New York Ranch Rd. Jackson, CA 95642 209-418-9846 Cell dmaloon@JacksonCasino.com</p>

Project Experience & References



We're Local!

All asset management, support and implementation services are conducted in-house from our Sacramento, CA location.



200+
Clients



1.2MIL +
Managed Assets





2.4MIL +
Work Orders

The NEXGEN team is a unique team that brings the combination of unparalleled industry experiences in asset management, implementation, and consulting. The company's mission is to provide

"Developing industry leading Asset Management solutions that are innovative, reliable and intuitive, designed to establish and sustain next generation asset management intelligence."

NEXGEN was developed by engineers and leaders of Asset Management in the Utility and Public Works industries. Vincent Yee P.E., the president, founded the company specifically to provide asset management solutions for utilities and public works. Mr. Yee is a recognized leader and practitioner in asset management for utilities and public works across the United States, Australia and New Zealand.

Our firm has completed asset management projects for:

-  City of Corona
-  City of Livermore
-  City of Tracy
-  Central Valley Water District
-  City of Tualatin
-  Coachella Valley Water District
-  City of Durham
-  Chino Basin Desalter Authority
-  City of Benicia
-  Sausalito Marin City SD
-  City of Auburn
-  City of Nampa
-  City of Hayward
-  Widefield Water and Sanitation District
-  Facebook
-  Plymouth Tube
-  LG Chemical Power
-  Sparetime Inc
-  Easton
-  Digikey
-  Airbnb

Project Experience & References

NEXGEN's specialties include asset Condition Assessments and incorporation of this data into Asset Management (AM) programs.

FEATURED CLIENTS



PROJECTS UNDERWAY



City of Vallejo
Public Works, Water & Police



Coachella Valley
Water District



North Marin
Water District

City of Corona California



Project:	Asset Management
Departments:	Department of Water, Power and Public Works
Elements:	Condition assessment, asset inventory, SR, WO, preventive maintenance, warehouse, resources, reporting, asset lifecycle planning, risk analysis
NEXGEN Staff:	Vincent Yee, Dan, Rich, Gaja Naik, Sukhdeep Kaur, Alan Zeisbrich
Delivery:	On budget and schedule
Total Cost:	\$1.8 million



Tracy Martin

E: tracy.martin@ci.corona.ca.us
P: 951.817.5880

Utilities Project Manager

7555 Public Safety Way
Corona, CA 92880

City of Livermore California



Project:	Asset Management
Departments:	Department of Water Resources: Water Treatment & Distribution, Wastewater Treatment & Collection
Elements:	Condition assessment, asset inventory, SR, WO, preventive maintenance, warehouse, resources, reporting, asset lifecycle planning, risk analysis
NEXGEN Staff:	Vincent Yee, Dan, Rich, Gaja Naik, Sukhdeep Kaur
Delivery:	On budget and schedule
Total Cost:	\$1.2 million



Andy Hall

E: athall@DWROflivermore.net
P: 925.960.8178

Asset Management Specialist

101 W Jack London Blvd
Livermore, CA 94551

Project Experience & References

City of Benicia California



Project:	Asset Management
Departments:	Water treatment and distribution, wastewater treatment and collection, public works
Elements:	Condition assessment, asset inventory, work orders, preventive maintenance, resources, warehouse, reporting
NEXGEN Staff:	Vincent Yee, Dan, Rich, Gaja Naik, Sukhdeep Kaur,
Delivery:	On budget and schedule
Total Cost:	\$150,000



Robby McKenna

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Utilities Technologist

100 Water Way
Benicia, CA 94510

City of Auburn California



Project:	Asset Management
Departments:	Utilities – water and wastewater
Elements:	Condition assessment, asset inventory, preventive maintenance, work orders, resources, warehouse, reporting
NEXGEN Staff:	Vincent Yee, Dan, Rich, Mark Cocke, Melissa Lee, Joe DiGiorgio, Jeremy Pollet
Delivery:	On budget and schedule
Total Cost:	\$227,000



Bernie Schroeder

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P: 530.823.4211 x144

Director of Public Works

1225 Lincoln Way
Auburn, CA 95603

Central Valley Water Reclamation Facility Salt Lake City, Utah



Project:	Asset Management
Departments:	Wastewater treatment and collection
Elements:	Condition assessment, asset inventory, work orders, preventive maintenance, warehouse, resources, reporting
NEXGEN Staff:	Vincent Yee, Dan, Rich, Gaja Naik, Sukhdeep Kaur, Alan Zeisbrich
Delivery:	On budget and schedule
Total Cost:	\$468,000



Kelly Kimber

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IT & Data Manager

800 West Central Valley Rd
Salt Lake City, UT 84119

F. PROPOSED BUDGET



Our proposed project budget (\$79,560) and 2021 fee schedule is provided below. Please note that the hourly rates shown represent the total hourly charges we would invoice the City except for direct expenses shown. NEXGEN **DOES NOT** add communication / computer/ software or other administrative charges to these hourly fees like many other firms do.


NEXGEN Hourly Fee Schedule

<u>Classification</u>	<u>2021 Hourly Rate</u>
Principal	220
Senior Engineer	200
Senior CAD Designer	160
Associate Engineer	160
CAD Designer	120
Administration	80
Senior Inspector/ Const Manager	180
Associate Inspectors	120

Direct Expenses

Reimbursement for direct expenses, as listed below, incurred in connection with the work will be at cost plus five percent (5%) for items such as: subconsultants, soils engineers, surveyors, drillers, labs, and contractors

F. PROPOSED BUDGET

		NEXGEN UM			CONTROLPOINT					
		Principal Engineer	Senior Engineer	Associate Engineer	Principal Engineer	Senior Engineer	Toatl Hours	Expenses (a)	Total Cost	
		Rates	\$220	\$200	\$160	\$200	\$160			
PROJECT TASKS - CITY OF WILLOWS WASTEWATER FACILITIES CONDITION ASSESSMENT										
1 SEWER LIFT STATION CONDITION ASSESSMENTS										
	a. On-site assessments and field data collection		8	8	8	8	32	\$ 300	\$ 6,060	
	b. Obtain Equipment/Materials Data		4	12		4	20		\$ 3,360	
	c. Identify Performance Deficiencies		4	6	2	4	16		\$ 2,800	
	d. Evaluate Condition of Assets		4		4		8	\$ 400	\$ 2,000	
	e. Recommend Mitigations / Cost Estimates	4	6	8	4	4	26	\$ 200	\$ 5,000	
	f. Prepare DRAFT Memo		10	10	4	4	28	\$ 50	\$ 5,090	
	g. FINAL Memo		4	4		4	12	\$ 100	\$ 2,180	
	SUBTOTAL	4	40	48	22	28	142	\$ 1,050	\$ 26,490	
2 WASTEWATER TREATMENT PLANT EQUIPMENT CONDITION ASSESSMENT										
	a. On-site assessments and field data collection		8	8	8	8	32	\$ 300	\$ 6,060	
	b. Obtain Equipment/Materials Data		6	16		8	30		\$ 5,040	
	c. Identify Performance Deficiencies		8	12	4	6	30		\$ 5,280	
	d. Evaluate Condition of Assets	4	8		4		16	\$ 400	\$ 3,680	
	e. Recommend Mitigations / Cost Estimates	4	6	16	4	12	42	\$ 400	\$ 7,760	
	f. Prepare DRAFT Memo		12	12	4	8	36	\$ 50	\$ 6,450	
	g. FINAL Memo		4	4		4	12	\$ 100	\$ 2,180	
	SUBTOTAL	8	52	68	24	46	198	\$ 1,250	\$ 36,450	
3 PROJECT MANAGEMENT AND MEETINGS										
	a. Four (4) Meetings with City Staff		24	12		12	48	\$ 100	\$ 8,740	
	b. City Council Meeting	6	8	4			18	\$ -	\$ 3,560	
	c. Administration	6			2		8	\$ 100	\$ 1,820	
	d. QA/QC	4	4		2	2	12	\$ 100	\$ 2,500	
	SUBTOTAL	16	36	16	4	14	86	\$ 300	\$ 16,620	
PROJECT TOTAL			28	128	132	50	88	426	\$ 2,600	\$ 79,560
(a) Expenses include a 5% markup on subconsultants										

Appendix - Team Resumes

Joe DiGiorgio P.E.

Senior Project Manager



Joe has more than 35 years of experience as project engineer, project manager, and construction manager. He has primarily been involved in field investigations and the design and construction of pipelines and facilities improvements for complex water and wastewater projects. His duties for public agency clients have included planning tasks such as negotiating with permitting agencies, obtaining easements from property owners, and coordinating public outreach and environmental reporting. He also has extensive experience providing design services during construction, and coordinating with construction crews, inspection staff, and design/construction monitoring subcontractors on equipment and process analysis, commissioning, and environmental mitigation monitoring. He has served private clients as the engineer of record for sewer bypass plans and authored SSMP and UWMP documents for several agencies

EDUCATION

B.S., Engineering and Applied Sciences, California Institute of Technology, Pasadena, California, 1980

Graduate Studies in Environmental Engineering, California State University, Sacramento, Sacramento, California, 1988, 1989, and 1995

REGISTRATIONS

Professional Engineer #51439, State of California

PROJECT EXPERIENCE

Georgetown Divide PUD Auburn Lake Trails WTP Improvement Project 2017 – 2019

Joe has provided construction management and inspection services throughout the course of the \$10.5 million water treatment plant construction project. This Project had a very limited budget which Joe was able to stretch out for 6 months after the original projected Project Completion due to Project delays caused by the Contractor. Joe's experience with system modelling and SCADA controls was vital in getting the new WTP operational before State imposed deadlines.

This work included coordination with SRF funding requirements, including facilitating on-site EPA audits of the AIS "Buy American" compliance, and State Labor compliance audits. Joe also provided copy ready project photographs and updates for the local newspaper to facilitate the District's Public Outreach efforts.

City of Auburn WWTP- Solids Handling Improvements 2019 to Present

Joe is the Project Manager for this \$5 million project which will replace a 30 year old belt filter press facility. The new process facilities will include a screw press and a separate loading dock structure to accommodate larger, more efficient reuse trucking. The facility also includes the use of a pipe trench to allow all process piping to be readily accessible for future process equipment changes that may occur over a 100 year projected useful life.

The equipment, controls, instrumentation, and layouts are all chosen to minimize operational labor costs and allow remote monitoring and control of all critical process. Worker safety features were incorporated into the design and the deluge shower hot water heating system will also be utilized to heat the building floors, keeping it above the dew point, even with continuous ventilation year round. This will further enhance worker safety and equipment lifetimes as well as keep polymer chemicals from chilling below storage recommendations.

The design is near completion and will be constructed in 2021.

City of Colfax – Algae Removal and Dewatering Project (2019 – Present)

Joe is the Project Manager of this \$3 million SRF Grant Funded Project which will install a SAF type floatation thickener to remove and process algae sludge from the storage pond water, so that the Title 22 mechanical processes are not affected by the algae loadings. Joe is currently working with City staff characterizing and troubleshooting the existing ancillary processes to quantify any needed upgrades for the algae removal process. This project is expected to be funded and constructed next year.

* denotes projects completed with other firms

Joe DiGiorgio P.E.

Senior Project Manager



City of Dixon Wastewater Treatment Plant Permitting and Improvements Project 2005-2017 (Project Manager, Construction Manager)

Responsible for developing the studies and negotiating with the Regional Board to rescind a Cease and Desist Order related to salinity compliance. A series of public hearings occurred over two years and ultimately a process was selected that could meet the salinity requirements at a savings to the community of over \$30 million compared with a reverse osmosis process.

This Project was the first WWTF designed primarily to address salinity permit compliance and it did so by reducing process evaporative losses (of pure water) to meet effluent salinity concentration levels. This not only saved the community over \$30 million in construction costs, O&M costs were also greatly reduced because there is no need for high energy process or disposal of salt brine/cake. The evaporative loss savings amount to almost 30% of the entire City potable groundwater use and this pure water is returned to the local aquifer by the land disposal facilities.

The Project was awarded ENVISION Silver, which is similar to nationwide LEED type environmental ranking, except more suited to Public Works projects, rather than buildings.

Joe also served as Project Manager/Designer on the \$28.5 million WWTF Improvements Project design that replaces an ageing pond system and conserves more than 30% of the City's water use that was previously lost to evaporation, and returns it to the local aquifer. Joe currently serves as Construction Manager on this project and worked with the Contractor to value engineer the project to mitigate cost escalations as the project was delayed by years due to a citizens group legal challenges.

The value engineering changes involved a deletion of \$ 4 million of mechanical sludge handling facilities from the bid project and an addition of less than \$3 million in alternative facilities, including sludge stabilization basins, for a net construction savings of more than \$1 million, thereby meeting the City's SRF funding budget for the project.

This project included the design, environmental permitting and construction monitoring of a 2.1-mile-long 12" diameter water pipeline as a change order when the planned on-site well became too expensive to drill due to the drought. Defining property owner and environmental constraints as well as coordination with Solano County road agencies were important to the successful installation of the water pipeline. The project also includes approximately 3,200 feet of 24-inch gravity flow effluent pipe and 1200 feet of 16 to 18 inch process pipe.

The entire existing WWTF was bypassed for the duration of construction with a dual redundant electric/diesel pump system rated at 1,800 gpm capacity. The bypass system includes a cellular alarm monitoring system and has operated as intended for 21 months. Design related change orders are well below 1%, there have been no claims, and the Project was completed in 2017.

City of Lincoln Wastewater Treatment Plant Expansions (Project Engineer/Construction Manager)

Work included I/I analysis, WWTP hydraulic and process improvements, a 195 mg storage reservoir, five-mile effluent pipeline, and 300 acres of reclamation disposal fields. The WWTP 1.4 mgd expansion was completed \$100,000 under budget and included an innovative wetwell siphon connection to return an abandoned pump station to service. The effluent pipeline crossed a creek with sensitive habitat. The 2.0 mgd expansion was similarly under budget and included provision for a final process expansion to 2.4 mgd.

City of Lincoln WWTRF, Phase 1 – Earthwork Project (Project Engineer), Phase 2 - WWTRF Project

This \$7-million project involves design of the first portion of a new \$40 million Title 22 treatment facility. Included are 250 mg of storage basins approximately one-mile of large diameter pipelines, and four pump stations that will provide interim disposal capacity for the City's existing WWTP. Once the new Title 22 plant is built, these facilities will be integrated as emergency storage and trace metals removal process components. The basins were designed with wetland marsh regions to complete a planned adjacent wetland restoration area.

Joe DiGiorgio P.E.

Senior Project Manager



Joe also served as a design engineer and provided design services during construction and start-up services for the new Title 22 treatment facility. This facility included large process piping installations: 600 LF of 36-inch, 1,600 LF of 42-inch, 2,800 LF of 48-inch, 300 LF of 54-inch, 400 LF of 60-inch, and 200 LF of 66-inch PVC and T-lock line reinforced concrete pipe.

City of Lincoln Chambers and Douglas Drive Sewer Project (Project Engineer)

This project involved approximately 2,500 LF of 30" diameter sewer pipe that was designed to serve as a pressure force main to initially convey flows from the old WWTP to the new WWTRF disposal ponds. It was converted to a gravity sewer line as downstream gravity pipes up to 66" diameter were installed to the new WWTRF and the old WWTP was taken off line. Joe served as a design engineer and engineering services during construction, including the 180 LF creek crossing, and working with affected home and landowners during construction.

City of Lincoln Mid-West Placer Regional Pipeline Project (Project Engineer)

One aspect of this project involved the design of the control facilities and on-site improvements for a five-mile long recycled water distribution line to a local farm for crop irrigation. This project allows for the Regional WWTRF to avoid discharges to a sensitive stream when necessary for permit compliance and provides a drought proof supply to a local farm that can avoid pumping water from the local aquifer, which is over drafted in the area of the farm. Joe coordinated construction work with farming operations and negotiated easement agreements with property owners.

The raw sewage component was a 16-mile 22-inch diameter force main which included a 66LF, 34-inch diameter jack and bore tunnel for a steel casing pipe under State Hwy 193. The design also had two horizontal direction drilling locations, one 300 LF across Auburn Ravine Creek, the other 200 LF across Doty Ravine.

City of West Sacramento Sewer Force Main Project (Project Engineer)

Work included modeling a complicated sewer force main system that may be modified to tie into a regional gravity truck collection system. The modeling identified optimum tie in configuration and reviewed modification to seven major piping facilities. Joe was also the design engineer to implement the changes to the force main system as the City abandoned its WWTP and directed sewage flow into the LNWT project.

Mountain House CSD 30-inch Water Transmission Main, Main Pump Station, and Booster Pump Station (Project Engineer, Project Manager)

Work included design, right of way acquisition and coordinating with three counties, DWR, and BOR, and engineering services during construction for a raw water intake pump station, 5-mile-long 30-inch raw water pipeline and 2-mile-long 30-inch potable water pipeline. The main pump station is located on the central valley project aqueduct just upstream of the Banks pumping plant and required 30-foot tall sheet piles and dewatering to construct. Continuous access thru the construction work area was required to maintain aqueduct operations.

The raw pipeline crosses the Delta- Mendota canal, a State Highway and UPRR railroad tracks and then parallels the UPRR R/W. The crossing of the state highway and UPRR tracks necessitated boring and jack tunneling to install a 180 LF 42-inch diameter steel casing pipe. Early coordination with UPRR and oil pipeline owners avoided costly delays when fuel contaminated soils were encountered. The potable water pipeline continues parallel to the UPRR tracks and Chevron fuel lines with two perpendicular jack and bore tunnel locations to install 42-inch diameter steel casing pipes under the RR tracks, fuel lines and State Highway. One was 144 LF the other 177 LF.

Joe also assisted with permitting work for the community wastewater discharge to the sensitive waters of the Delta.

Joe DiGiorgio P.E.

Senior Project Manager



Travis Air Force Base Building 1150 Pump Station Improvements (XDAT02-7505) (Project Manager)
The AFB had been utilizing the pump station to convey raw sewage to the City of Fairfield collection system for years but were facing increasing flows, rising maintenance costs, and concerns for worker safety. A brand new replacement pump station proposed by another firm was too expensive. Joe evaluated the existing pumping structure for concrete and metal corrosion, and structural compliance with new equipment loading, and recent seismic code compliance and found the old dry pit could be rehabilitated and converted to a new wet well with submersibles at a 30% total project savings. This project required a bypass pumping plan on a 24-inch sewer that was active for the duration of construction.

City of Stockton North Area Pump Stations Control Modifications Project, Stockton, California (Project Manager)
This work involved analysis of the control modifications required to integrate the network of North Area pump stations with the nearly completed 54-66-inch diameter Westside sewer project. Several North Area pump stations were switched over to pump to the Westside system to relieve a bottleneck in the North Area System. The initial excess capacity volume in the large diameter system was utilized to provide equalization storage during peak sewer flow events which allowed postponement of bottleneck relief projects for years until funding became available.

North Stockton Interim Sewer Improvement Project, Stockton, California (Project Engineer) *
Engineer during construction, primarily involved with equipment troubleshooting and design remedies during construction. This project included improvements to seven major pumping plants and installation large diameter gravity flow sewer pipes to 39 mgd.

The March Lane sewer improvement component included monitoring installation of 5,180 LF of 18 to 24-inch sewer pipe in open trenches in a busy thoroughfare and a 165LF jack and bore 33-inch diameter tunnel across Eldorado Street under numerous utilities. Bypass and dewatering pumping, as well as traffic control, were required.

City of Woodlake WWTP Improvements (Project Engineer)

Provided design and engineering services during construction for this \$20 million project. He provided inspection services for the local CM firm and spoke at and coordinated the public dedication event.

City of Woodland WPCF Improvements (Design Engineer, 1987-1989)

Worked on the design of the oxidation ditches, pond improvements, and the existing headworks. Provided design and engineering services during construction.

Presentations

California Water Environment Association 35th Annual Pretreatment, Pollution Prevention and Stormwater (P3S) Conference and Exhibition, Long Beach, CA.; DiGiorgio J.B., Sundaram, V. (2008) *Residential Water Conditioning Technology and its effect on wastewater effluent quality,*

GRAC – Groundwater Salinity: A Groundwater Dilemma, March 2009; *Municipal Wastewater Salinity Regulatory Compliance in an Agricultural Setting: A \$Million Question ??*

California Water Environment Association 2010 Northern Regional Training Conference, Modesto, CA; Pre-Conference Workshop - *Salinity in the Central Valley: Issues, Regulations, Perspectives and Case Studies – Panel Member, appeared with Mark Felton of Culligan Water in a joint presentation and round table discussion.*

California Water Environment Association 2011 Annual Conference, Ontario - *Constituents of Emerging Concerns; Sustainable Water Reuse Practices. - Emerging Regulatory Issues; Salinity Reductions Associated with Recent Water Softener Source Control Efforts: Dixon, CA*

Other Experience

Technical Advisor, and Interviewee, for the 2008 WEF produced, Emmy winning documentary, *Salt of the Earth.*

Joe DiGiorgio P.E.

Senior Project Manager



Participation on the Educational and Technical committees of CV_SALTS for 10 years. *Served as Chair of the Education Committee and voting member of the Executive Committee.*

Technical Reviewer for Aquaforma INFORMATION Desk Article - *Salinity in the Central Valley: A critical problem*

Presenter and Coordinator - *CV_SALTS Salinity Workshops in Woodland, CA and Tulare, CA*

In 1994 Joe became a Founder of the Sacramento Chapter of APWA Educational Endowment Fund. *By 2017 the fund had grown to \$400,000 allowing it to sustain periodic grants to local universities to further civil and hydraulic engineering education.*

Dan Rich P.E.

Principal In Charge



Dan has twenty seven years of experience in planning, designing, and evaluating processes for wastewater and sludge treatment. He specializes in treatment process development, process modeling and design, performance evaluation, trouble-shooting, and NPDES compliance. He has served as Project Manager for over twenty sewer master plans and twelve wastewater treatment plant designs for cities across California. Dan co-founded Nexgen Utility Management in 2005 and is a Vice President of the firm. In his spare time, Dan serves as an elected Director of the San Juan Water District which provides treated water to 300,000 people in Placer and Sacramento Counties.

EDUCATION

M.S. Sanitary Engineering, University of California at Davis, Davis, CA

MBA, University of California at Davis, Davis, CA

B.S. Civil Engineering, University of Colorado at Boulder, Boulder, CO

REGISTRATIONS

Professional Civil Engineer No.56365, State of California

PROJECT EXPERIENCE

Wastewater Treatment Design Experience

City of Auburn Treatment Improvements (2014-2019). Project Manager for a \$10 million upgrade to the City of Auburn's WWTP. The secondary process upgrades will allow the city to treat 1.8 mgd to stringent ammonia and nitrate standards. The project includes new fine screens, a magnesium hydroxide feed system for alkalinity addition, a new return sludge pump station, and modifications to the stormwater pond system. The new 2.3 MG ditch is designed for maximum energy efficiency including 18-foot deep vertical walls, vertical aerators with by variable frequency drives, submersible mixers to mix contents during low load conditions, online nitrate and ORP sensors to match horsepower with influent loads, and a separate anoxic basin to remove nitrates and recover oxygen.

City of Auburn Solids Handling Upgrades (2020- Current). In 2020, Dan designed the replacement to the City's 30 year old belt filter press facility. The new process facilities will

include a screw press and a separate loading dock structure to accommodate larger, more efficient reuse trucking. The facility also includes the use of a pipe trench to allow all process piping to be readily accessible for future process equipment changes that may occur over a 100 year projected useful life. The equipment, controls, instrumentation, and layouts are all chosen to minimize operational labor costs and allow remote monitoring and control of all critical process.

City of Auburn UV Disinfection and Nitrogen Removal Design (2009). Project Manager for an upgrade to include new aeration controls, nitrification/ denitrification facilities, pond equalization facilities, and ultraviolet light disinfection facilities. Project also included successful pilot testing of adding methanol to the plant's existing sand filters to both filter and denitrify the effluent.

City of Woodland WWTP Improvements (2008-Current) Since 2008, NEXGEN has served as the City of Woodland's Wastewater Consultant and Dan has served as the City's Project Manager for various improvement projects. In 2009 and 2014, Dan served as PM for NPDES permit renewals. In each renewal, the adopted permit limits became less restrictive. Each summer since 2010, Dan has served as the PM for sludge stabilization, drying, and hauling operations at the WWTP. The WWTP utilizes a novel system of facultative ponds which use solar energy/algae to digest and dry the solids. The stabilized solids are used for alternative daily cover at the nearby landfill or are used as a soil amendment on nearby cropland. In 2015, Dan served as PM for a \$1.4 million pond project that cement and lime treats the bottom of two 10-acre ponds and constructs various piping and valving improvements. In 2010-2013, Dan served as PM for improvements to the WWTP

secondary system. The project included converting three 2 MG existing oxidation ditches to energy efficient fine bubble nitrifying/ denitrifying bioreactors. The project doubled the treatment capacity, cut power costs by half, fully nitrified and removed nitrates to below 10 mg/L, and improved effluent turbidity. The project construction cost was \$15 million.

City of Colusa WWTP Recycled Water Improvements (2013 - Current). Project Manager for upgrades to the City's 0.7 MGD WWTP and sewer collection system. The plant improvements include the addition of a new simultaneous nitrification–denitrification facilities, secondary clarifier, return sludge pumping, treated effluent storage, and pumping and piping of tertiary effluent to nearby alfalfa fields. Project cost is \$14 million. The project will improve system reliability and will allow the City to seasonally recycle its water on agricultural lands. Dan also served as PM for the 2013 renewal of its NPDES permit and supporting technical studies.

Jackson Rancheria WWTP New Headworks and Influent Pump Station (2016). Project Manager new vertical screens, magnesium hydroxide feed system, influent pump station, and odor control system.

City of Auburn Tertiary Upgrades Design & Construction (1997). Principal design engineer and construction manager for new flocculation basins and continuous backwashing sand filters for the City of Auburn's Wastewater Treatment Plant. The project provided 6 mgd of water suitable for unrestricted reuse for downstream agricultural users.

Cities of Reno & Sparks Wastewater Treatment Plant Design (2000). Project manager and principal design engineer for two high-rate nitrifying trickling filters for the TMWRF (cities of Reno and Sparks). The trickling filters are 88-foot-diameter towers containing high-density plastic media. The facilities are designed to treat 18 mgd, and allow secondary effluent ammonia levels to be reduced to below 0.5 mg/L.

City of Lincoln Wastewater Treatment Plant Design (2004). Process Design Engineer for

tertiary and disinfection systems for a 4 mgd WWTP for the City of Lincoln. Selected and designed filters, chemical feed facilities, and UV disinfection facilities. Design allowed treated effluent to be used for unrestricted reuse on nearby agricultural lands.

City of Merced Wastewater Treatment Plant Design (2006). Process Design Engineer for tertiary and disinfection systems for a 12 mgd (\$35 million upgrade) WWTP for the City of Lincoln. Selected and designed filters, chemical feed facilities, and UV disinfection facilities. Design allowed treated effluent to be used for unrestricted reuse on nearby agricultural lands.

City of West Sacramento Wastewater Treatment Plant Design (1998). Principal design engineer and construction manager for a three-compartment anoxic selector and new fine-bubble diffused air system retrofit at the City of West Sacramento WWTP. The project allowed the WWTP to reliably nitrify and partially denitrify effluent.

Wastewater Master Planning Project Experience

City of Folsom Sewer System Evaluation and Capacity Assurance Plans (2003, 2005, and 2007) Project Manager for the development of a system-wide hydraulic model and master plan of the City of Folsom's sewer collection system. In 2001, City of Folsom and OCSd were the first two collection systems in the State that were issued Waste Discharge Requirements for their collection systems; this project served as benchmark for establishing design storms and modeling approaches for sewer systems with chronic overflows. In these projects, attributes for all sewers 8-inches and larger were inventoried, inputted into a GIS database, and incorporated into the hydraulic model (3000 pipes).

City of Woodland Sewer Master Plans and Permit Renewals (1999, 2004 2008, 2012). Project Manager for the City's Sewer Master Plan and various updates. The project included constructing a 2000 pipe dynamic flow-routing model of the City's system and calibrating the model with measured flows throughout the

collection system. The project identified capacity bottlenecks, severity of I&I, and developed a comprehensive (10 year) CIP.

City of Merced Sewer Master Plan and Update (2002 and 2007). Project manager for preparation of the City's Sewer Master Plan to serve build out of the City's General Plan and the proposed UC Merced Campus. A GIS-based dynamic hydraulic model of the City's system was developed to determine best routing options and an interim phasing plan and allowed developments to use existing trunk sewer capacity while sewers were constructed. Flow monitors were deployed for two winters and one summer period to calibrate the model. The study identified \$80 M in new sewers and pump stations.

City of West Sacramento Sewer Master Plan (2003). Project Manager for a comprehensive sewer master plan for growth projected within the City of West Sacramento's 20-year General Plan. The project evaluated the impacts of abandoning the City's existing WWTP and connecting the City wastewater conveyance system into the Sacramento Regional County Sanitation District Lower Northwest Interceptor System

City of Auburn Sewer Master Plan (2008, 2011). Project Manager for the City of Auburn Sewer Master Plan. The project involved flow monitoring, surveying, and hydraulic modeling of current and buildout of the City's General Plan. The project also involved pilot testing of a denitrification filter and effluent ozonation for oxidation of personal care products present in the wastewater.

Placer County Trunk Sewer Master Plans (2006 and 2007). Project Manager for Placer County's Sewer Master Plan to serve build out of the General Plan. A GIS-based dynamic hydraulic model of the City's system was developed to determine the best means of eliminating chronic overflow problems within the County's trunk sewers. The study identified a combination of parallel sewers, pipe bursting of existing sewers, and I&I reduction methods.

City of Wasco Water and Wastewater Master Plans (2007). Project Manager for both Water and Wastewater Master Plan for the City of Wasco.

Identified 20-year capital improvement plans to serve planned City growth, including \$60 M of expanded water systems and \$45 M in new wastewater facilities. Specific emphasis was placed on how the City could phase in a new 1,800 acre industrial park. The plans are being used to develop land-based financing agreements for proposed annexations.

City of Colusa Sewer Master Plan and Permitting (2008, 2012). Project Manager for a sewer and water system master plan for the City of Colusa. Project involves surveying and inspection of all trunk sewers, flow monitoring (8 sites), hydraulic modeling, pump station condition assessments, and CIP development.

Water Reclamation System Master Planning

City of Los Banos Wastewater Strategic Plan (2007). Project Manager City of Los Banos Phase II Wastewater Treatment Plant (WWTP) Expansion and Upgrade Strategic Plan, Los Banos, California. The Strategic Plan described wastewater facilities to serve planned City growth, regulatory drivers, necessary upgrades, and costs. The plan recommended a series of salinity controls and industrial pretreatment of the city's industrial users.

Tejon Mountain Village Reuse Plan (2007). Project Manager for \$ 50 M wastewater treatment and reclamation plan for a new proposed development outside of Lebec CA called Tejon Mountain Village. The project will involve a novel use of septic tank effluent pumping systems, membrane bioreactors, and greenhouse sludge processing. Approximately 1 mgd of wastewater will be treated for unrestricted reuse on landscaping and golf courses.

City of Tracy Wastewater Master Plan (1995). Project engineer for a treatment and disposal master plan for the City of Tracy's new General Plan (120,000 residents). The plan recommended separate treatment of tomato waste water from the main plant and upgrades to produce unrestricted reuse quality water. Both recommendations were eventually implemented by the City.

Mark Cocke P.E.

Senior Project Manager



Mark has 25 years of experience in planning, designing, and evaluating processes for watershed hydrologic systems for stormwater, nonpoint pollution, and flood management and ten years for planning, designing, and evaluating processes wastewater and sludge treatment. He specializes in treatment process development, and design, performance evaluation, trouble-shooting, and NPDES compliance. He has served as Project Manager for the City of Woodland's collection system asset management system, sewer master plan and wastewater treatment plant upgrade.

EDUCATION

B.S. Civil Engineering, California State University, Sacramento, California

REGISTRATIONS

Professional Civil Engineer No.040609, State of California

PROJECT EXPERIENCE

Wastewater Treatment Design Experience

City of Auburn Secondary Treatment Improvements (2014 to 2019). Designer for parts of a \$10 million upgrade to the City of Auburn's WWTP. The secondary process upgrades will allow the city to treat 1.8 mgd to stringent ammonia and nitrate standards; this includes developing specifications, and being the responsible designer for the MLE Oxidation ditch, and modifications to the stormwater pond system. The new 2.3 MG ditch is designed for maximum energy efficiency. The Project includes integrating the new assets into the existing NEXGEN AM asset management system.

City of Woodland WWTP Improvements (2005-Current) Since 2005, to 2014 as Senior Civil Engineer for the City of Woodland Utilities Division Mark worked on identifying I&I sources to the WWTP facilities, Capital Improvement Plan, and developing \$2.5M worth of capital improvements that resulted in a reduction of flows into the WWTP of 1.5 mgd. In 2010-2013, Mark served as the City's PM for improvements to the WWTP secondary system. The project construction cost was \$15 million. Mark served as the designer for a \$1.4 million pond project that cement and lime treats the bottom of two 10-acre ponds and

constructs various piping and valving improvements.

City of Colusa WWTP Recycled Water Improvements (2014 - Current). Mark developed a facilities plan for upgrades to the City's 0.7 MGD WWTP and sewer collection system. Mark is designing the plant improvements that include the addition of a new simultaneous nitrification-denitrification facilities, secondary clarifier, return sludge pumping, treated effluent storage, and pumping and piping of tertiary effluent to nearby alfalfa fields. Project cost is \$12 million.

Wastewater Master Planning Project Experience

City of Woodland Sewer Master Plans and Permit Renewals (2008, 2012). Asset Management Plan For the Collection System Project Manager for the City's Sewer Master Plan and various updates. The project included constructing a 2000 pipe dynamic flow-routing model of the City's system and calibrating the model with measured flows throughout the collection system. The project identified capacity bottlenecks, severity of I&I, and developed a comprehensive (10 year) CIP. Project manager for the integration of CCTV Data, GIS asset attributes, SSO information, and other information to develop a risk based loss of service model for prioritizing collection system assets. This information was used to develop graphical map based information that was used to increase the Collection System R&R program from \$275k per year to \$2M per year.

Wastewater Permitting Experience

Mark developed the statistical information that allowed for the removal of the selenium TSO that was has successfully negotiated as part of the Waste Discharge Requirements (WDRs) for the City of Woodland:

City of Colusa Sewer Master Plan and Permitting (2008, 2012). Project Manager for a sewer and water system master plan for the City of Colusa. Project involves surveying and inspection of all trunk sewers, flow monitoring (8 sites), hydraulic modeling, pump station condition assessments, and CIP development.

Water Reclamation System Master Planning

City of Woodland Wastewater Master Plans (2007, 2012). Project Manager for the City of Woodland Wastewater Master Plan. The plan included a detailed assessment of offsite odor emissions and controls, regional reclamation opportunities, new solids handling facilities, and required facilities to treat 10.4 mgd of wastewater flow to advanced tertiary levels.

Wastewater Permitting Experience

Mark developed the statistical information that allowed for the removal of the selenium TSO that was successfully negotiated as part of the Waste Discharge Requirements (WDRs) for the City of Woodland:

- ✓ City of Woodland (2014) NPDES Permit Renewal; SSMP (2008);

Urban Storm Water SB-5 Program

Implementation Development Committee: City of Woodland representative on the Urban Level of Flood Protection Work Group for development of California Department of Water Resources Manual for implementation of the Urban Storm Water Program.

Watershed Flood Management Planning

USDA NRCS Flood Management Plans for Flood Damage Reduction in the following Watersheds: Mark served as Team Leader, Civil Engineer, and Hydrologist for developing solutions to flood problems in the following areas of California and Nevada. The plans included detailed assessment the flood problem, solutions development, analysis of environmental impacts and costs. These Plans met NEPA and CEQA guidelines for Project Documents.

- ✓ McCoy Wash EIS/EIR, Flood Management for a 169 square mile watershed, near Blythe, California. Selected Project was a 43 foot high, 1,100 acre attenuation reservoir.
- ✓ Evans Creek EIS, Flood Management for a 4.5 square mile watershed near Reno, Nevada. Selected Project was an 81 foot high attenuation reservoir.
- ✓ Upper Penitencia Creek EIS/EIR, Flood Management Plan for a 24 square mile watershed in San Jose, California. Selected Project was a combination of levees, floodwalls and bypass channels.
- ✓ State of California Flood Awareness Mapping Program, developed floodplain mapping for five California Counties in areas with no FEMA flood maps.

Watershed Resource Management Planning

USDA NRCS Non-point Source Pollution Management Plan for Reduction of non-point pollution in the Escondido Watershed: Project entailed using GIS mapping to locate and quantify sources, types, and amounts of sediment, nutrients, stormwater from land uses in the Escondido Creek Watershed in San Diego County.

USDA NRCS Representative on State of California Programs.

- ✓ CalFed Interagency Development Team, worked on defining the selected solution for the Sacramento and San Joaquin Delta. This evolved into the present Delta Plan.
- ✓ Governor's Office of Planning and Research Task Force on Disaster Planning. This group worked on developing new standards for General Plans to address problems for flooding and wild land fire inadequacies in General Plan Standards.
- ✓ Governor's Task Force on Dairy Waste Management to address dairy waste generation in the Sacramento and Joaquin Valley. Develop policy to address groundwater and surface water pollution from waste application by dairies. Worked with State Agencies, Farm Bureau, agricultural representatives, and other NGO's on developing best management practices to reduce the impacts of dairy waste.

Melissa Lee P.E.

Senior Project Engineer



Melissa Lee is a Project Engineer of NEXGEN Utility Management. Mrs. Lee has 16 years of permitting, planning, and design experience in a wide-range of water and wastewater projects. Areas of specialty include SRF funding, wastewater collection system master planning, I/I studies, hydraulic modeling, geographical information system (GIS), flow projection studies, NPDES permitting, and recycled water. Melissa was recently chosen to serve on the City of Sacramento Utilities Rate Advisory Commission.

EDUCATION

B.S. / Civil Engineering / University of California, Davis, CA

REGISTRATION

Professional Civil Engineer No. 70060, State of California

PROJECT EXPERIENCE

Recent Pump Station Design Experience

City of Auburn Sewer Pump Stations. Project Engineer

South Placer Municipal Utility District Pump Stations for New Development. Project Engineer

City of Colusa Sewer and Recycled Water Pump Stations. Project Engineer

Jackson Rancheria Influent Pump Station. Project Engineer

Flow Monitoring and Hydraulic Evaluations

City of Sacramento Infiltration and Inflow Study. Project engineer for a wastewater flow monitoring requirements for the northern and southern portions of the "Pocket Area". Provided extensive quality checking on the data. Determined a correlation between the Sacramento River stage and levels of infiltration in the wastewater collection system.

City of Lincoln Infiltration and Inflow Study and Wastewater Collection System Master Plan.

This project included an I/I study of the wastewater collection system and subsequent master planning documentation for the City of Lincoln. Responsibilities included coordination with sub consultant for flow monitoring requirements, subsequent flow data and I/I analysis, I/I report

preparation, wastewater generation rate analysis. Utilized GIS to estimate basin areas and complete a pipe inventory.

City of Lathrop Wastewater Capacity Verification Study (2007). Project engineer for a citywide I/I study and flow study (12 meters). Coordinated with sub consultant to conduct flow and electrical conductivity (EC) monitoring for 6 months in the City of Lathrop. An I/I study was also completed. The project also involved collection of demographic and water use data to determine average wastewater generation and water use per household per day. This required coordination with more than 6 developers and City engineering staff. A portion of the project involved surveying residents to determine number of occupants per house. A Microsoft Access database was developed for manipulation of data and for future use by the City.

SWRCB SRF and USDA Funding

City of Woodland SRF Funding for WWTP Improvements (2014) and Recycled Water Projects (2015, 2018). Prepared all documents and forms related to applying for funding with the State Water Resources Control Board Clean Water State Revolving Fund (SRF).

City of Auburn SRF Funding for WWTP Secondary Process Improvements (2014-2018). Prepared all documents and forms related to applying for funding with the State Water Resources Control Board Clean Water State Revolving Fund (SRF). I also prepare and submit continuing documentation after funding is secured such as quarterly reports, and documentation of SWPPP and environmental compliance.

City of Colusa SRF Funding, USDA Grant Funding, and Preparation of Petition for Change of Water Rights for WWTP, Recycled

Water, and Collection System Improvements (2015-2018). A USDA grant was obtained to help fund planning efforts for the WWTP improvement project. Prepared all documents and forms related to applying for funding with the State Water Resources Control Board Clean Water State Revolving Fund (SRF) as well as the Petition for Change of Water Rights relating to removing wastewater effluent from receiving water for reclamation. I also prepare and submit continuing documentation after funding is secured such as quarterly reports, and documentation of SWPPP and environmental compliance.

NPDES Permitting/Reports of Waste Discharge

City of Auburn and City of Colusa Copper and Aluminum Water Effect Ratio Studies

Completed a copper and aluminum water effect ratio (WER) studies to determine if metals in the effluent discharge were toxic to aquatic life. The Regional Water Quality Control Board (RWQCB) accepted the studies and the copper/ alum effluent limits were removed from the WWTP NPDES permits.

City of Auburn Report of Waste Discharge Renewals (2005, 2010, 2016, 2021)

City of Woodland Report of Waste Discharge Renewals (2008, 2013, 2019)

City of Colusa Report of Waste Discharge and MUN De-Designation (2013 and 2016)

City of Biggs Report of Waste Discharge (2012)

SSMPs

- ***City of Davis***
- ***City of Woodland***
- ***City of Auburn***
- ***City of Folsom***
- ***South Place MUD***
- ***City of Colusa***

Chris Bressi.

Senior Construction Manager



Chris Bressi provides 33 years of construction management experience for public works projects. Chris is responsible for the inspection of all work related to the construction of pump stations, new housing subdivisions and agency owned CIP projects including land grading, installation of sewer and storm drain facilities, and the construction of streets, sidewalks sound and retaining walls and landscaping in the public right of way. Chris served as the CM for the \$11 million upgrade of the Auburn WWTP and \$5 million of improvement projects at the City of Woodland WWTP.

EDUCATION

Construction Management, Supervision, & Inspection Consumnes River College

REGISTRATIONS

American Water Works Association Certified
Backflow Prevention Device Tester

ICBO Certified Soil Special Inspector

PROJECT EXPERIENCE

Wastewater / Sewer

- Auburn WWTP Secondary Treatment Improvements: \$11 million
- Auburn Oaks Pump Station Upgrades (City of Auburn)
- Maidu Lift Station Upgrades (City of Auburn)
- Vintage Oaks Lift Station (City of Auburn)
- Old Town Sewer Phase 1 Slip Lining (City of Auburn)
- Foresthill Avenue Sewer Project - realignment of existing sewer main and slip lining (City of Auburn)
- Old Town Sewer Phase 2, installation of 24" diameter sewer in Lincoln Way including bore and jack under Auburn-Folsom Road (City of Auburn)
- Auburn Annual sewer repair/replacement program: evaluate prioritize and inspect the repair replacement of sewer facilities in various area within the City
- Auburn 2009 Improvement Project. Construction Manager for a \$9 million upgrade project
- City of Woodland WWTP Improvements 2009-2014

Public Works

- Cobblestone Subdivision, 70 single family lots
- Meadowbrook Subdivision; 80 single family lots
- Summer Ridge: 13 single family lots
- Additional duties include the inspection of various CIP projects including road overlays, installation of traffic signals, sewer lift station construction, sewer main repairs, upgrades and rehabilitation, City corporation yard remodel.

Transportation

- 2006 Street Overlay phase 1: construction cost of \$391,761
- 2006 Street Overlay Phase 2 Construction cost of \$426,769
- 2005 Street Overlay. Construction cost of \$1,050,000
- 2004 Slurry Seal program: \$70,000
- Auburn Multimodal Station (new parking area and Amtrak Passenger Loading Platform, construction cost \$1,198,000
- Corp Yard C.N.G. fueling facility
- Safe Path to Schools Program Construction of new sidewalks, and bike lanes.

Auburn Airport Federal Aviation Administration Sponsored Projects

- The abandonment and replacement of the existing underground fuel tanks and dispersing system.
- The extension of Bill Clark Way.
- East end taxiway and taxilane expansion.
- Installation of 12" sewer main serving the east end hanger expansion.

Chris Bressi.

Senior Construction Manager



- Installation of airport perimeter security fencing.

Traffic Signal projects

- Emergency Vehicle preemption/ modification project various locations on Auburn Folsom Rd. \$295,000
- Auburn Folsom Maidu Traffic Signal
- Palm Ave/ Nevada St traffic signal
- Nevada St. and Fulwieller Traffic Signal
- High and Agard Traffic Signal

City of Galt Engineering Technician

Public works inspection of subdivision projects, including the construction of streets, sidewalks, storm drains, water mains and street lighting systems, act as R.E. and assistant R.E. on assessment district projects, inspect streetscapes and new park construction, maintain project records, and monitor labor compliance.

CURRICULUM VITAE

June 3, 2015

Name: Bradley Alan Friederichs

Profession: Consulting Structural Engineer

Registrations: California Structural Engineer, 1985, No. S2780
Oregon Structural Engineer, No. 14308PE
Washington Structural Engineer, No. 27932
Nevada Structural Engineer, No. 13470
Arizona Structural Engineer, No. 27796
Hawaii Professional Engineer, No. 10044
Texas Professional Engineer, No. 104078
California General Building Contractor- 753388

Education: B.S. Civil Engineering with honors, 1979, California State University, Sacramento

Experience: August, 1997 to present, President, VE Solutions, Inc., a consulting structural engineering firm.
1982 to August, 1997, Senior Vice President (94-97), Cole/Yee/Schubert Structural Engineers, Inc., Sacramento, CA, a consulting structural engineering firm with 15 to 38 employees.
Vice President, Project Manager (87-94), supervised project engineers on some 200 projects, involving buildings of all types and public works (bridges, water treatment facilities, etc.)
Project Engineer (84-87), in responsible charge of approx. 100 projects, involving buildings of all types.
1980 to 1981, Design Engineer, Hoi Wong Structural Engineer, Sacramento, designed masonry and wood frame buildings, schools, retaining walls, precast concrete panels.
1979 to 1980, Design Engineer, SMUD, designed substation structures and footings, inspected construction of buildings and underground transmission lines.

**Papers/
Presentations:** "Seismic Retrofit of University of California, Davis Water Storage Tanks," *Civil Engineering*, September, 1997
"Seismic Design of Reinforced Concrete Buildings in Seismic Zones 2A, 3 and 4," *Concrete Reinforcing Steel Institute*, September, 1993

"Seismic Design of Steel Moment Frames in Seismic Zones 3 and 4," *American Society of Civil Engineers*, November, 1989

"Seismic Design of Steel Braced Frames in Seismic Zones 3 and 4," *American Institute of Steel Construction*, June, 1988

Society

Memberships: Structural Engineers Association of Central California: President (1989-90), Chairman Loma Prieta Disaster Response Team (1989) and Northridge Earthquake Disaster Response Team (1994)
Structural Engineers Association of California: Director (1990-93)
Building Board of Appeals, Sacramento County
Construction Specifications Institute
American Society of Civil Engineers
American Concrete Institute

Awards: Citation for Exemplary Efforts Towards Emergency Response during the October 17, 1989 Earthquake, 1989 by State of California, Office of Emergency Services
Recognition for Dedicated Service and Significant Achievement in the Profession, 1988 by California State University, Sacramento
Outstanding Student, 1979 by Engineering Council of Sacramento Valley

Design Experience: *Some of the 4000 projects that Brad has designed during his career.*

Bridges, Site Structures

- Elysian Viaduct Seismic Retrofit (Caltrans) \$50 million
- Avendia De Los Flores OC Retrofit (Caltrans)) \$5 million
- San Quentin Seawall \$5 million
- SF Bay Bridge Temporary Bypass Structure \$100 million

Commercial (steel frame & prestressed concrete)

- SMUD Customer Service Center 4 stories, 175,000 sf
- St. John's Plaza Office Bldg & Parking Garage 5 stories, 118,000 sf
- 16th & K Office Building 4 stories, 50,000 sf
- Fort Sutter Medical Office Building 6 stories, 75,000 sf
- Howe Arden Office Building 6 stories, 150,000 sf
- Sutter Support Medical Office Building 7 stories, 100,000 sf
- General Instruction Building, Monterey, CA 5 stories, 90,000 sf
- General Instruction Building, Monterey, CA 4 stories, 78,000 sf

Residential (wood frame)

- Nelson Residence 8,000 sf
- Tsui Residence 3,500 sf
- Friederichs Irish Beach 1,500 sf
- Murray Residence Addition 750 sf
- Arai Residence Addition 1,500 sf
- Lee Residence 4,500 sf
- Richardson Residence \$400,000

Apartments/Condominiums (wood frame)

- Ashely Avenue Apartments 200 units

• The Ridge Condominiums	400 units
<u>Retail</u> (wood frame, steel frame, prestressed concrete)	
• Old Folsom Retail Center	3 stories, 50,000 sf
• Country Club Centre Renovation	2 stories, 120,000 sf
• Sutter Square Galleria & Parking Garage	3 stories, 75,000 sf
<u>Hospital</u> (steel frame, wood frame)	
• Auburn Faith Hospital Addition	100,000 sf
• Sutter Memorial Hospital Addition	6 stories, 260,000 sf
• Sutter General Hospital	5 stories, 300,000 sf
<u>Public Schools</u> (steel frame, wood frame, masonry)	
• South Tahoe Middle School Addition	\$2 million
• Clovis High School	\$10 million
• Manchester Elementary School	\$500,000
• School Plan Checks for State of California	\$30 million est.
<u>Seismic Renovation</u> (concrete, steel frame)	
• City of Sacramento (3-3 Mg water tanks)	\$3.3 million
• UC Davis 1 Mg water tank (energy dissipation)	\$2 million
• Liberty House Office Conversion	100,000 sf
<u>Industrial</u> (tilt-up concrete, concrete)	
• Campbell Soup Company W20C Warehouse	120,000 sf
• Lincoln Airport Business Park	2-75,000 sf
• Northgate Business Park	90,000 sf
• Rancho Seco Nuclear Plant Decommissioning	\$700 million
<u>Water/Wastewater Structures</u>	
• Nevada City Wastewater Treatment Plant	\$30 million
• Colusa Wastewater Treatment Plant	\$12 million
• Foothill Raw Water Pump Station	\$35 million
• Grass Valley Wastewater Treatment Plant	\$8 million
• Lincoln Wastewater Treatment Plant	\$80 million
• Fortuna Wastewater Treatment Plant	\$20 million
• Lathrop Water Recycling Plant (#1 & #2)	\$35 million
• Rio Vista Wastewater Treatment Plant	\$20 million
• Reno Stead Solids Handling Pump Station	\$3 million
• Reno Stead Wastewater Treatment Plant	\$25 million
• Woodland WWTP Expansion	\$15 million
• Valley Glen Pump Station, Dixon	\$2.5 million
• Wheeler Ranch Pump Station, Yuba City	\$2 million
• Callamont Tank, 500,000 gal	\$5 million
• Copper Cove Pump Station	\$300,000
• Comanche Pump Station	\$400,000
• Fresno Airport Pump Station	\$100,000
• Pena Adobe Pump Station, Petaluma	\$1 million
• Allison Parkway Pump Station, Vacaville	\$1 million

- SCWD Polo Grounds WTP \$1 million
- Galt Effluent Diversion Structure \$100,000
- Greenwood Water Treatment Georgetown PUD \$5 million

Parking Garage (prestressed concrete)

- Alhambra Athletic Club 2 stories, 400 spaces
- Sutter Dialysis Center 5 stories, 800 spaces
- Alhambra Medical Office Bldg 5 stories, 700 spaces
- Sutter Square Galleria 2 stories, 350 spaces

Prisons (steel frame, concrete tilt-up):

- Mule Creek State Prison, Ione, CA (DOC) 1,500 beds
- Madera II Women's Prison, Chowchilla (DOC) 2,000 beds
- Valley Children's Hospital Plan Check (OSHPD) 250,000 s.f., 7 buildings
- Methodist Hospital Plan Check (OSHPD) 100,000 s.f., 3 buildings

UCD Mechanical Equipment

- Chiller Equipment Replacement Anchorage
- Wickson Hill Chilled Water Pipe Supports
- Central Plant 'B' Chiller Replacement

Substation Structures:

- SMUD 115 kv Station B Upgrade \$2 million
- NEC 69 kv Substation \$10 million
- SMUD 230 kv Underground (Construction Insp) \$25 million
- International Home Foods Substations 115 kv \$5 million
- Schmelbach 115 kv Substation \$8 million
- Cal Cedar 60 kv Substation \$2 million
- SC Johnson 115 kv Substation \$6 million
- POSCO 12 KV cable tray installation \$3 million

Project Management/Prime Consultant:

- Campbell Soup Warehouse W20-C, 100,000 sf \$2.5 Million
- Campbell Soup W-2 Refrigeration Upgrade \$2 Million

Sacramento County Projects

- Morgan Creek Generator Enclosure \$50,000
- Sandra Larson Generator Slab \$25,000
- Carol Miller Generator Slab Extension \$2,000

Food Processing Projects

- Food Processing Lines and platforms \$10 million
- Rice Silos, Catwalks, Elevators (various) \$5 million and up
- Plant Expansions (info available on request) \$5-10 million
- Conveyor Installation and support \$5 million
- Platforms, equipment supports for various food processing clients (names are confidential)

Jeremy J. Pollet, P.E., CAP

(Principal Engineer)

Summary

Jeremy has 20 years of electrical engineering consulting experience specializing in process controls and industrial automation, SCADA systems, electrical power engineering, and project management.

Jeremy's industrial sector experience includes water and wastewater treatment plants, pipelines, pump stations, electric power generation, cogeneration, discrete manufacturing, food processing, oil and gas production and refining.

Areas of Expertise

Electrical Design Engineering

- Electrical power distribution design and analysis
- Electrical system modeling
- Single-line diagrams
- Motor controls, wiring schedules, load calculations, electrical specifications
- Economic evaluations, feasibility studies, technical memorandums, submittal reviews
- Pre-design and design reports
- Cost estimates and bid document preparation

Process Controls / Industrial Automation

- Hardware, software, and instrumentation specifications
- Piping and instrumentation diagrams (P&IDs)
- PLC programming (versatile experience with a wide variety of PLCs)
- Control panel design
- Communication networks design
- Control strategies and system documentation
- System startup & commissioning

SCADA Systems

- Process monitoring and control interface screens (multiple SCADA system packages)
- Database development, data collection, reporting, trending
- Alarm philosophies, alarm systems, auto-dialer configuration

Project Management

- Project definition, project scoping and estimates
- Resource planning
- Project lifecycle tracking
- Project reporting and analysis

Education

Bachelor of Science, Electrical Engineering

- University of New Orleans, New Orleans, LA
- Tau Beta Pi National Engineering Honors Graduate

Registrations

Professional Electrical Engineer (PE)

- Electrical Engineer, No. 17557, California

ISA Certified Automation Professional® (CAP)

- Certification No. 40116

Licensed Electrical Contractor (C-10)

- California C-10 License No. 900853

Professional Certifications & Affiliations

- Wonderware® Certified Developer
- Ignition® Systems Integrator
- ISA Member (NorCal Section)

Career History

Jeremy has been Principal Engineer & President of ControlPoint Engineering since 2007.

Before starting ControlPoint Engineering, Jeremy worked for other engineering and system integration consulting firms. He started out as a control systems engineer for PLCs Plus International, Inc. (Bakersfield, CA) and advanced to Lead Project Engineer before moving over to KSI Engineering, Inc. At KSI, Jeremy broadened his engineering knowledge while serving as Lead Design Engineer. For family considerations, a move to Sacramento, CA was next and Jeremy took a job with ATEEM Electrical Engineering as Engineering Design Manager. After working with ECO:LOGIC Engineering (Rocklin, CA) on several projects, he then went to work directly for them prior to starting his own firm.

Project Experience

For a detailed listing of project experience, please see the following pages.



CONTROLPOINT
ENGINEERING

City of Davis Public Works Department

- **Public Works SCADA Pilot Project.** Designed, installed, programmed, and integrated a non-proprietary, state-of-the-art SCADA System for the City's Water Wells, Sewage Lift Stations, and Storm Drain Stations. Hardware consisted of Allen-Bradley's MicroLogix PLC Platform and Motorola Canopy Ethernet Radios that were installed on the top of the City's 125 ft Elevated Water Storage Tank.
- **Public Works SCADA Upgrade Project.** Designed, installed, developed, and integrated a new city-wide SCADA system. SCADA system architecture consisted of a two redundant servers utilizing Ignition® from Inductive Automation.

City of Woodland Public Works Department

- **Water Wells & Elevated Storage Tank.** Developed a distributed automated control system for the City's 20+ Wells and Elevated Water Storage Tank. Hardware consisted of Allen-Bradley's CompactLogix PLCs, Panelview 1000 HMIs, and GE MDS SD4 Radios. SCADA System developed in Intellution (GE/Proficy) iFIX software.
- **Water Pollution Control Facility – SCADA Systems Integration.** SCADA system development with Intellution (GE/Proficy) iFIX to accommodate the plant expansion. SCADA system architecture consisted of a primary and backup SCADA node (each running Microsoft® Windows XP), one terminal server (running Microsoft® Windows Server 2003) and one iHistorian computer (running Microsoft® Windows 2000 Professional). Workstations throughout the plant used terminal services sessions to view the plant data. SCADAalarm version 5.0 was used for alarm annunciation to the on-call operator's cell phone or pager.

Northstar Community Services District

- **Water Well and Storage Tanks Automation.** Developed PLC ladder logic and complete SCADA system for a 250 hp water well site and storage tank facility. The project involved 3 different PLCs communicating over serial radios. SCADA system was built with Wonderware® InTouch, the PLCs were Allen-Bradley MicroLogix, and the radios were from Teledesign Systems. This system will serve as a baseline for future development at the District.

Washoe County Department of Water Resources

- **Fish Springs Ranch Water – SCADA Systems Integration.** Complete automation and supervisory

control for a 30 mile pipeline project utilizing Wonderware's Industrial Application Server (IAS) Platform (version 3.0, patch 1). SCADA system architecture consisted of a two servers running Microsoft® Windows Server 2003 (two IAS terminal servers – one primary and one failover/InSQL Historian). Workstations throughout the remote pipeline facilities (booster stations and well sites) used Microsoft® Remote Desktop Connections to run InTouch for Terminal Services 10.0 sessions from the primary IAS server. Allen Bradley ControlLogix Programmable Automation Controllers were polled with Kepware® TOP Server.

El Dorado Irrigation District

- **Electrical Power and Controls Design.** Licensed Electrical Engineer in responsible charge for the electrical power and controls design for a very large scale Waste Water Treatment Plant expansion. Design documents included P&IDs, electrical one-lines, electrical power plans, conduit schedules, lighting panel and power panel schedules, lighting fixture schedules, installation details, and division 16 electrical specifications. In addition to multiple individual design responsibilities, this project involved direct management and supervision of a team of design engineers and technical assistants.
- **Filters 1,2, & 3 PLC Upgrades.** Upgraded legacy Allen-Bradley PLC-5 with RIO to ControlLogix platform. Updated Wonderware System Platform objects and graphics.

City of Merced

- **Electrical Power and Controls Design.** Licensed Electrical Engineer in responsible charge for the electrical power and controls design for a very large scale Waste Water Treatment Plant expansion. Design documents included P&IDs, electrical one-lines, electrical power plans, conduit schedules, lighting panel and power panel schedules, lighting fixture schedules, installation details, and division 16 electrical specifications. In addition to multiple individual design responsibilities, this project involved direct management and supervision of a team of design engineers and technical assistants.
- **SCADA System Integration.** From 2005-2011, as part of an interim expansion project, the Phase IV expansion project, and the Phase V expansion project, the plant's automated control system was completely overhauled and updated. The plant's Allen-Bradley SLC 5/05 PLCs, FactoryTalk View SE Distributed SCADA application, and Win-911 systems were updated to control and monitor new equipment.



CONTROLPOINT
ENGINEERING

- o **Water Department SCADA Upgrade Project.** Designed, installed, developed, and integrated a new city-wide SCADA system. SCADA system architecture consisted of a Microsoft Server 2012 operating system running Ignition® from Inductive Automation.

Sacramento Municipal Utilities District

- o **SCADA Systems Maintenance.** Ongoing on-call contract to perform system maintenance, repair, and improvements on the District's mission-critical SCADA applications.

Sacramento Suburban Water District

- o **SCADA Upgrade Evaluation.** Provided 3rd Party review, evaluation, and recommendations for SCADA Upgrade Project. Three (3) separate SCADA solutions were considered during this study.

Reno-Stead Wastewater Treatment Plant

- o **PLC and SCADA System Rewrite.** In an effort to correct recurring faults and to standardize on a single programming methodology, the PLC ladder logic for 3 of the 5 plant PLCs was completely rewritten. The SCADA system was cleaned up in accordance with the operator's needs and the tagname dictionary was redirected to the new PLC registers. SCADA system was built with Wonderware® InTouch and Modicon PLCs were used throughout the plant.

Nevada County Sanitation District

- o **Lake Wildwood WWTP – Complete Plant Automation.** Supervisory Control of the entire wastewater plant utilizing Wonderware's Industrial Application Server (IAS) Platform (version 2.1, patch 2). SCADA system architecture consisted of a three servers running Microsoft® Windows Server 2003 (two IAS terminal servers – one primary and one failover, and one InSQL Historian). Workstations throughout the plant used Microsoft® Remote Desktop Connections to run InTouch for Terminal Services 9.5 sessions from the primary IAS server. Allen Bradley ControlLogix Programmable Automation Controllers were polled with Wonderware® DA Server. SCADAAlarm version 6.0 patch 1 was used for alarm annunciation to the on-call operator's cell phone or pager.

City of Auburn, CA

- o **Electrical Power and Controls Design.** Licensed Electrical Engineer in responsible charge for the electrical power and controls design for the City's Waste Water Treatment Plant expansion. Design documents included P&IDs, electrical one-lines,

electrical power plans, conduit schedules, lighting panel and power panel schedules, lighting fixture schedules, installation details, and division 16 electrical specifications.

Each of the following projects included contract drawings and specifications and the electrical scope included the PG&E metering section, standby generator with automatic transfer switch, pump control panel, power distribution panel, and associated generator building electrical and lighting infrastructure.

- o **Vintage Oaks Lift Station.** Designed the electrical facilities for a lift station featuring two (2) 110 HP sewage lift station pumps.
- o **Falcon Point Lift Station.** Designed the electrical facilities for a lift station featuring two (2) 35 HP sewage lift station pumps.
- o **Auburn Oaks Lift Station.** Designed the electrical facilities for a lift station featuring two (2) 30 HP sewage lift station pumps.
- o **Montecielo Lift Station.** Designed the electrical facilities for a lift station featuring two (2) 5 HP sewage lift station pumps.

City of Biggs, CA

- o **Electrical Power and Controls Design.** Licensed Electrical Engineer in responsible charge for the electrical power and controls design for a mid-sized Waste Water Treatment Plant expansion. Design documents included P&IDs, electrical one-lines, electrical power plans, conduit schedules, installation details, and division 16 electrical specifications.

Tejon Ranch

- o **Water Storage and Pump Stations Control.** Developed wireless control and data acquisition between multiple PLCs for controlling tank levels and pump stations. Project involved PLC programming and OIT development for remote operation of pumps via control room operator interfaces.

City of St. Helena, CA

- o **Waste Water Treatment Plant Design.** Licensed Electrical Engineer in responsible charge for the electrical power and controls design for a small scale Waste Water Treatment Plant expansion. Design documents included P&IDs, electrical one-lines, electrical power plans, conduit schedules, installation details, and division 16 electrical specifications.



Madera County, CA

- **Water Delivery System Design.** Licensed Electrical Engineer in responsible charge for the electrical power and controls design for a mid-sized water delivery system consisting of 4 wells, a storage tank, and booster pumps. Design documents included P&IDs, electrical one-lines, electrical power plans, conduit schedules, installation details, and division 16 electrical specifications.

Arvin-Edison Water District

- **Canal Check Structures.** Designed the electrical facilities for three water check/flow control structures. Projects included contract drawings and specifications and the electrical infrastructure included automated control panels, power distribution panels, radio telemetry, and associated area lighting.

Aera Energy, LLC

- **Lift Circuit Shutdown Electrical Controls and Automation.** Engineered an automated lift shutdown solution for three (3) production field leases. Developed electrical controls and PLC ladder logic to facilitate process-conditioned triggers to open field Reclosers. Communication media involved fiber optics and Ethernet.
- **Power Distribution Modeling.** Developed power distribution models for six substation distributions encompassing over 50 miles of production wells and facilities.
- **Power Distribution Consulting.** Provided electrical engineering recommendations for ongoing drilling program expansions including load-shifting, new transformer specifications, transformer resizing, and cost analysis.
- **Wastewater Wells Automation and Electrical Power.** Engineered and integrated a complete stand-alone solar powered station for monitoring a remote wastewater injection station. This project included a feasibility study on building new 12kV power vs. stand-alone solar power. Additional duties included developing ladder logic and a control-room SCADA system for process measurement and alarming.
- **Gas Plant Automation and Electrical Power.** Electrical engineer responsible for designing and integrating electrical and automation controls for production gas separation and cooling stations. Duties included sizing a bank of 12kV/480V transformers to feed the facility, lighting design collaboration, and developing ladder logic for PLC controls.

- **Vapor Recovery Automation.** Controls engineer responsible for automation and controls design and integration for multiple stage vapor recovery units. Duties included developing PLC ladder logic, a remote SCADA system, local operator interfaces, loop (wire) checking the entire facility, and providing startup support on a total of 12 units.
- **Gas Injection Wells Measurement.** Integrated proprietary gas flow equations into PLC ladder logic and developed process visualization for multiple gas orifice measurement locations.
- **Lease Automated Custody Transfer (LACT) Retrofit.** Developed and implemented a PLC driven automation solution for converting six (6) single customer LACT stations into multiple customer stations. Other enhancements included the addition of a charge pump boosting station, widespread monitoring, error checking, and data reporting.
- **Water Plant Electrical Controls Upgrade.** Developed the project scope, cost estimates, and engineering data for providing electrical and process controls upgrades on multiple pump stations, pipelines, and water storage tanks. Upgrades to the electrical equipment included new 4160V and 480V motor starters, controllers, breakers, and fuses. Other duties included project management and on-site startup support and commissioning.
- **High Pressure Crude Oil Pipeline Pumps.** Engineer responsible for providing automated controls for a crude oil pipeline pump station. Duties included PLC programming, VFD controls, SCADA integration, and data transfer to/from auxiliary pipeline company PLCs.

Accuflow

- **Multiphase Metering Systems.** Designed and developed PLC controls (programming logic) and supervisory data acquisition system for a patented oil and gas measurement system.

Berkley Petroleum

- **Well Production Facility Controls.** Developed operator interface applications for controlling automated production separating facilities. Start up and commissioning duties included PLC programming and instrumentation troubleshooting.

BP Amoco

- **RTU Retrofit.** Controls engineer responsible for replacement of existing gas monitoring and control RTUs for assets throughout Wyoming area. Project involved significant interaction with the BP Amoco Application Engineers in Houston to ensure



CONTROLPOINT
— E N G I N E E R I N G —

interoperability with custom Modbus drivers and a Unix-based SCADA host server. Extensive documentation for technical support and explanations were prepared. Control logic, including process control and on-board data logging, was developed in IEC 61131-3 compliant software. Pilot unit was tested and supported on-site in Wyoming. The technology developed for this project replaced over 100 units in its first year. Up to 1100 units were targeted for replacement throughout the next few years.

Chevron USA

- **Eastridge Cogen - Ionics Reverse Osmosis Water Filtration Automation.** Designed an updated automation solution to replace an antiquated logic controller on a reverse osmosis filtration station. Duties included specifying new technology, writing new PLC ladder logic, and providing startup support.
- **Sulferox Gas Injection Wells Automation.** This project involved PLC programming, wireless data transfer, startup support, detailed documentation, and SCADA system development including process screens, historical logging, and real-time and historical trending.
- **Liquid Production Cooling Automation.** Engineer responsible for designing an automated solution for thermally cooling production liquid. The scope of work involved PLC programming, operator interface development, and SCADA system integration to monitor and control several very large fin fan cooling bays. A detailed operators manual was created to outline the operation of the process and the control features that were designed into the facility.
- **Gas Production Cooling Automation.** Engineer responsible for designing an automated solution for thermally cooling liquid production. The scope of work involved PLC programming, operator interface development, and SCADA system integration to monitor and control several very large fin fan cooling bays. A detailed operators manual was created to outline the operation of the process and the control features designed into the facility.
- **Water Plant SCADA System Integration.** Systems integrator responsible for designing a complete SCADA system for a very large scale, multi-lease produced water filtration plant. The overhaul of this SCADA system involved new graphics, database, and I/O servers to support a new plant PLC and distributed remote I/O.
- **Fresh Water Pipeline Automation.** Controls engineer responsible for complete automation of a

10-mile water pipeline including a well pump station, water storage facility, and a pipeline pump station. Both the wellhead and the storage site were locally controlled with operator interfaces and remotely controlled and monitored via a SCADA system. Data was gathered via wireless Ethernet communications.

- **Caustic Soda Storage and Mixing Station Automation.** Controls engineer responsible for the complete automation of a hazardous material receiving and handling facility. Project involved a storage facility and automated mixing stations.
- **SO2 Gas Scrubber Automation.** Controls engineer responsible for the complete automation of a sulfur dioxide removal facility. Project involved automating a large exhaust gas scrubber vessel and several auxiliary vessels and pumps. SCADA integration involved extensive historical reporting and alarming for the Air Pollution Control District.

Chevron Texaco

- **Sulferox Plant SCADA System Integration.** Controls Engineer responsible for complete overhaul of antiquated HMI SCADA system. New OPC based SCADA system development included process screens, alarming, remote alarm paging, trending, data logging, event logging, and alarm logging.
- **Cogen Feed Water Control and Steam Measurement.** Responsibilities included developing PLC logic for controlling feed water pumps, calculating steam flow, steam quality (and control), and calculating branch allocations. Several operator interfaces for steam measurement and feed water pump control were used throughout the plant for monitoring and control.
- **Brinks Filter Automation.** Controls engineer responsible for the complete automation of an exhaust gas particulate filtration system. Project highlights for this very large scale project include motor monitoring and controls for a 600 HP filtration fan motor, multi drop PLC-PLC communication network design and integration, and complex steam generator volumetric controls. SCADA integration involved extensive historical reporting and alarming for the Air Pollution Control District.
- **Wireless Geothermal Steam Distribution Measurement.** Controls engineer responsible for designing and implementing a controls solution for data processing and measurement on over 30 patented steam splitter systems. A PLC was employed as a data concentrator for calculating steam flow, steam quality, and branch allocations. Analog data from the splitters was gathered via wireless transmitters and sent back to a single point



data hub. The SCADA system involved an extensive graphic interface, detailed data realization, and wireless PDAs for mobile "on-the-go" alarming and monitoring.

City of Delano

- **Electrical Power Consulting.** Provided electrical engineering design reviews for other consultant's designs.

EOG Resources

- **Oil and Gas Processing Plant Automation.** Systems integrator responsible for developing a complete automation solution for PLC control of an oil and gas processing plant. The facility size warranted the use of two PLCs, each containing a large quantity of I/O. This project involved an extensive amount of PLC programming. Worked closely with team members in developing the plant SCADA system.

GM Motors

- **Conveyor Controls and Automobile Part Testing Stations.** Systems integrator responsible for developing ladder logic for three (3) separate PLCs controlling conveyor movements, stop gates, part testing and verification, and pass/fail result logging.

Grimmway Farms

- **Cold Storage Room Humidity Controls.** Systems integrator responsible for developing an operator interface for alarming and monitoring of several cold storage room controls.

San Joaquin County – Flag City Wastewater Treatment Facility

- **Electrical Power and Controls Design.** Licensed Electrical Engineer in responsible charge for the electrical and control system improvements for a regulatory compliance improvement project. Design documents included electrical one-lines, electrical power plans, conduit schedules, lighting panel and power panel schedules, installation details, and division 16 electrical specifications.



CONTROLPOINT
— E N G I N E E R I N G —

Matt Boring

(Engineering Design Manager)

Summary

Matt has 35 of experience with electrical and control design and construction management specific to the water and wastewater industry.

His industrial sector experience includes water and wastewater treatment facilities, conveyance pipelines, pump stations and SCADA systems.

Matt is known for working collectively with contractors and owners to resolve issues and keep projects on schedule. His good nature and experience during all project phases from planning through implementation contribute to his success. Matt enjoys seeing projects through to completion with satisfied owners and contractors.

Areas of Expertise

Engineering and Design

- Single Lines and load calculations
- Site planning
- Conduit and conductor design
- Power and control specifications
- System startup & commissioning
- Power and controls trouble shooting and repair

Process Controls / Industrial Automation

- Hardware, software, and instrumentation specifications
- Piping and instrumentation diagrams (P&IDs)
- Control panel design, construction and installation
- Communication networks design
- Radio path surveys
- Control strategies and system documentation
- System startup & commissioning
- Control system trouble shooting and repair

Construction Management/Engineering services

- Submittal review
- Construction cost review
- Schedule review
- On-site observation/electrical inspection
- System startup & commissioning
- Factory witness testing for electrical and controls
- On-site witness testing for electrical systems
- Field documentation/reporting

Professional Certifications & Affiliations

- NFPA® #2513896
- Ignition® Systems Integrator

Career History

Matt joined ControlPoint Engineering in 2017 after 12 years with Stantec as a project manager/Senior SCADA specialist. During his time at Stantec Matt was responsible for many water and wastewater electrical and SCADA projects including design, construction management and electrical inspection. Prior to Stantec, Matt was the field manager for local Electrical Engineering and Management Consultant, A TEEM. Prior to A TEEM Matt was employed by El Dorado Irrigation District (EID). During his time at EID, Matt had many roles including; system mechanic, crane truck operator, electrician, electrical inspector for contractor installed systems as well as SCADA and instrument technician. Before his time at EID, Matt worked as an electrical contractor and business owner.

Throughout his career Matt has used his talents to see hundreds of water and wastewater project to completion from varying perspectives, as owner during his time in the public sector, as contractor from his construction experience, and presently from the consultant viewpoint. This wide range of experience and his desire to serve his client provides great value to any project.

Project Experience

For a detailed listing of project experience, please see the following pages.



CONTROLPOINT
ENGINEERING

City of Reno

- **2015 SCADA Improvements.** Acted as lead designer, construction manager and inspector for the electrical and instrumentation upgrade to thirty of the City's sewage lift stations. The new \$1.2 million system replaced Motorola MOSCAD controllers and serial radio network. The new system is comprised of Allen Bradley controller connected by Cellular routers and was completed in house. System is built on an enterprise Inductive Automation Mission Critical Ignition system spanning the City Hall and Corporation yard, system includes a completely redundant system with backup SMS alarm and Voice modems.

City of Woodlake

- **Phase 1 Waste Water Treatment Plant Improvements.** Acted as the peer design reviewer and electrical and instrumentation inspector for the City's WWTP improvements project. Matt was also responsible for startup and testing activities as well as overseeing the SCADA system development and installation. The project utilized Inductive Automations Ignition SCADA application which included a complete Mission Critical redundant system.
- **Potable Water Improvements.** Matt was responsible for securing the \$200,000 Water system improvements project currently in the final design phase. The project includes replacing the control panels for seven well sites, two new well sites and two storage tanks. The remote sites will be integrated into the existing Ignition SCADA system at the recently expanded Wastewater Treatment Facility. The sites are connected via an Ethernet radio network relayed through a centrally located polling mater PLC at the corporation yard. Matt will be providing design services as well as building and installing the new control panels.

City of Live Oak

- **Waste Water Treatment Plant Upgrade.** Served as electrical inspector and SCADA installation manager for a \$17.7 million tertiary wastewater treatment plant upgrade project at the City's existing aerated pond treatment plant. The plant improvements include influent flow mechanical screening, extended air activated sludge (nitrification) secondary treatment, flow equalization, cloth disk tertiary filters, UV light disinfection, effluent pumping, integrated Wonder Ware SCADA system upgrade and improvements that include several off-site facilities.

City of Auburn

- **Waste Water Treatment Plant Upgrade.** Acted as the lead designer and electrical and instrumentation inspector for the electrical design of the \$4.5 Million improvements project consisting of a new UV disinfection system, RAS pump station, SCADA and electrical system modifications and oxidation ditch energy efficiency improvements as well as a new secondary clarifier. Matt also preformed Field and factory testing as well as startup services for the project. Matt was responsible for managing the PLC programming and SCADA system integration. The SCADA system was converted from a Data Flow Systems to Inductive Automations Ignition redundant application as a part of the WWTRF expansion. System included the integration of three Allen Bradley PLC's connected by an Ethernet fiber network as well as a serial radio link to remote sites

City of Colusa

- **Waste Water Treatment Plant Upgrade.** Served as Electrical Inspector and start up coordinator for the electrical facilities for a new \$15.3 million tertiary wastewater treatment plant that replaced the City's existing pond treatment system. The new plant included influent pumping, mechanical screening, extended air activated sludge (nitrification) secondary treatment, flow equalization, cloth disk tertiary filters, UV light disinfection, effluent pumping, aerated lagoon sludge storage, Managed and commissioned the installation of the Allen Bradley Control system with a Wonderware Interface.

City of Woodland

- **Waste Water Treatment Plant Expansion.** Served as electrical designer collecting all field data for the electrical design. During construction Matt acted as electrical inspector on the \$27 million 2005-2007 City of Woodland WWTP Expansion. The project involved construction of a new oxidation ditch, secondary clarifiers, new cloth media filtration, and UV light disinfection. Matt also managed the upgrade of the City's iFix SCADA System.
- **Well SCADA System.** Matt was responsible for engineering services during the construction including Submittal review, electrical inspection as well as contractor coordination with City operations group. Matt's team also provided integration services for this \$1.2 million project. Project included the retrofit of the City's existing 17 well sites included integrating a new serial radio system



into the existing iFix SCADA application utilizing Allen-Bradley Automation Controllers.

City of Lincoln

- **Waste Water Treatment Plant Upgrade.** Served as associate electrical inspector on the \$60 million City of Lincoln Wastewater Treatment and Reclamation Facility. Performed all witness and field testing for the electrical system including startup of the Cities Wonderware SCADA system.

Midwestern Placer Regional

- **Waste Water Treatment Plant Expansion.** Matt provided instrumentation and SCADA system design for this multi-faceted \$19 million regionalization project, which included a 29.5 MGD pump station, conveyance pipeline with odor control facility and an expansion of the City of Lincoln Wastewater Treatment and Reclamation Facility. Matt was responsible for engineering services during construction for all instrumentation and SCADA portions of the project. He was also responsible for managing PLC control programming for the Allen Bradley control system and all Wonderware and Ignition SCADA integration. Project scope has since been modified to include a complete SCADA system upgrade to the Inductive Automations Ignition SCADA application which included approximately 24,000 tags.

City of Jackson

- **Waste Water Treatment Plant Improvements.** Matt designed and installed an entry level SCADA system complete with new PLC control panels and instrumentation. The system was designed with the intent of expansion over the next several years. Initial cost for the complete turnkey system was approximately \$50,000. Since inception, Matt has provided improvements that include flow paced filter coagulant feed and rapid mixing. Matt is currently providing peer review services to the City for the plants 2017 expansion project and is contracted to provide SCADA integration for the expansion.

City of Angels

- **Waste Water Treatment Plant Expansion.** Matt designed the electrical, instrumentation and control system for the City's new Ultraviolet Disinfection system. Project included integration with existing plant electrical and control system. Matt provided engineering services as well as electrical inspection and was responsible for the management of startup,

as well as the testing and integration of the Wonderware HMI.

- **Spray Field Improvements.** Matt designed the electrical, instrumentation and control system for City's new land disposal system. The project included integration with the existing plant's electrical system and Allen Bradley control system via a new 450MHz serial radio system. Radio system was designed with future integration of the City Water Treatment Plant and outlying remote facilities. Matt provided engineering services as well as electrical inspection during construction, and was responsible for the management of startup, testing and integration of the Wonderware HMI. Project utilizes Allen Bradley Automation controllers communicating via 450 MHz serial radios.

City of Woodland

- **Waste Water Treatment Plant Expansion.** Served as electrical designer collecting all field data for the electrical design. During construction Matt acted as electrical inspector on the \$27 million 2005-2007 City of Woodland WWTP Expansion. The project involved construction of a new oxidation ditch, secondary clarifiers, new cloth media filtration, and UV light disinfection. Matt also managed the upgrade of the City's iFix SCADA System.

Zone 7 Water Agency

- **Chain of Lakes Well No. 5 Facility.** Design of the electrical and control systems for groundwater pump station and piping to connect to existing raw water transmission line. Project entailed a 500HP municipal production wells, well building, and remote communication over a fiber optic network. Final well production ranged to 1,500 gpm. Matt worked closely with Contractor and Agency staff to design improvements in an expedited design/build project approach.

Placer County Water Agency

- **Zone 1 Improvements Project.** Design of electrical and control systems to retrofit existing 900 gpm drinking water well and disinfection system and new 900 gpm drinking water well on separate site. These wells are utilized to supplement the existing PCWA drinking water distribution system in western Placer County.



City of Bishop

- **Water System SCADA Improvements.** Served as project manager and lead designer for the City's turn turnkey \$175K SCADA installation. Initial system included five facilities communicating via licensed 250mHZ serial radios. System includes integration of Inductive Automation's Ignition Java based SCADA platform communication with Allen Bradley PLC's in the field. Project has evolved since inception to include a total of eight facilities including the City's wastewater treatment facility. Improvements include energy efficient controls which have saved the City approximately 30% in utility charges for the Well 2 facility. Matt with cooperation from the City installed the complete system without the need to outsource any construction activities.

Las Cumbres Mutual Water Company

- **Slow Sand Filtration Project.** Matt was responsible for electrical, controls and SCADA system design as well as engineering services during construction and electrical inspection. Matt performed startup and commissioning of the of this \$1.2 million project which included the in house integration of new and existing Allen Bradley Controllers into a new Inductive Automations Ignition SCADA HMI. Project is currently in the final stages of commissioning.

Graton Casino and Resort

- **Water Filtration Project.** Matt was responsible for electrical, controls and SCADA system startup and commission of the of this \$1+ million project which included the in house integration of Allen Bradley Controllers into a new Inductive Automations Ignition SCADA HMI. Matt also provided coordination with the contractor for construction and startup activities.

Northstar Community Service District

- **SCADA Replacement Project.** Matt was responsible for securing the \$210,000 NCSD Wonderware and iFix conversion to Inductive Automations Ignition SCADA application. The project includes combining the existing NCSD Wonderware system and the recently acquired PCWA Zone 4 facilities. The combined tag count is approximately

16,000 tags and includes approximately 15 facilities. The two existing system will be connected by a new T-1 communication line with a backup cellular network connection. Project included field study to collect I/O information and all relative as-built drawings and PLC programs. This information was utilized to develop a technical memo with recommendation to convert to Ignition based on a ten-year cost of ownership study.

Northstar Community Service District

- **PLC Replacement Project.** Matt is responsible for planning, design and implementation of the Districts Programmable Logic Controller (PLC) replacement project. This ongoing project to replace the Districts legacy PLC's and Operator Interfaces (OIT's) that are now longer support will be phased over the next several budget cycles.

San Francisco PUD

- **Harry Tracy WTP Pilot Filter Rehabilitation Project.** Matt was responsible completing the rehabilitation of the plant's pilot filtration system. The system consisted of four sand filters including instrumentation and control systems. Matt was responsible for installing piping, instrumentation and configuration of the system. Filter feed pumps modulated to maintain constant flow to the filters with modulating effluent valves to maintain a constant head on the filters for process experimentation/validation. All instrumentation was connected to a data recorder via mA control loops and Modbus RTU serial communications.

Truckee Meadows Water Authority

- **Mt. Rose Water Treatment Facility Construction Assistance** Matt was engaged by the TMWA to assist their on-staff construction manager to assist with coordination between the design consultant the construction contractor. Duties will include detailed submittal reviews for electrical and controls equipment, change order cost reviews, assistance with contractor coordination, electrical observation/inspection and startup and commissioning. Project is currently in the construction phase and scheduled to be completed early 2020.



Jason Foster

(Lead SCADA Developer)

Summary

Jason has 15 years of Information Technologies and Software Development experience with process controls and industrial automation, SCADA systems, database technologies, computer networks, and web applications.

His industrial sector experience includes water and wastewater treatment plants, pipelines, pump stations, and power plants.

Jason is experienced in website publishing for industrial clients and creates custom dynamic web-based applications utilizing database technologies with an emphasis on simplicity and functionality.

Areas of Expertise

SCADA Software Development

- Wonderware® ArchedrA and InTouch
- Inductive Automation Ignition®
- Rockwell® FactoryTalk® Studio
- GE iFix

Process Controls / Industrial Automation

- Hardware, software, and instrumentation specifications
- Piping and instrumentation diagrams (P&IDs)
- PLC programming (versatile experience with a wide variety of PLCs)
- Control panel design
- Communication networks design
- Control strategies and system documentation
- System startup & commissioning

SCADA Systems

- Process monitoring and control interface screens (multiple SCADA system packages)
- Database development, data collection, reporting, trending
- Alarm philosophies, alarm systems, auto-dialer configuration

Web/Desktop Applications

- PHP
- JQUERY
- AJAX
- ASP
- Java
- C#
- PERL
- Python

Professional Certifications & Affiliations

- Wonderware® Certified Developer
- Ignition® Systems Integrator

Career History

Jason joined ControlPoint Engineering in 2017 as Lead SCADA Developer. Before then he worked at Stantec Consulting Services as a SCADA Specialist / Software Developer and Information Technologies professional for 14 years.

Throughout his career Jason has used his creativity and enthusiasm to develop a number of custom websites. These websites have ranged in functionality and purpose - from custom SCADA applications to productivity tools.

Project Experience

For a detailed listing of project experience, please see the following pages.



CONTROLPOINT
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Donner Summit

- **Waste Water Treatment Plant Expansion Project.** Provided PLC and SCADA development by utilizing Allen Bradley CompactLogix PLC's and a redundant Inductive Automation Ignition System. The Donner Summit Plant is one of the most sophisticated wastewater plants this side of the Sierra Mountains and is the first to provide effluent for recreational skiing.

South San Joaquin Irrigation District

- **Division 9 Irrigation Enhancement Project.** Worked with district staff to design and implement the Division 9 Pressurized Irrigation System. Performed all programming on the Farmer/District web application, created tools and security methods to transfer data to and from SCADA and provide ongoing support and improvements to this award winning system.

Dixon, CA

- **Waste Water Treatment Plant.** Provided PLC/SCADA programming during plant buildout. This project built a new WWTP at the site of the city's old WWTP. Provided all PLC and SCADA programming related to the project. The system relies on Rockwell Automation CompactLogix PLC's, Inductive Automation, and a high availability virtualized server infrastructure running VMWare. Assisted with networking, security and VPN configuration.

Reno, NV

- **Lift Station Upgrade Project.** 30 Lift Stations were upgraded to Allen Bradley MicroLogix 1400 PLC's, the existing Motorola Moscad radio system was replaced by 32 cellular modems which provide encrypted IPSec Tunnels back to a redundant Inductive Automation Ignition SCADA system. Provided all PLC programming, SCADA development as well as all networking, security configuration and VPN deployment. This project was unique as it is a fully redundant SCADA system with physically

separated nodes, a third "Nuclear SCADA in a Box" system was also provided. Allowing staff the ability to operate SCADA independantly of the two main redundant nodes in the event of an attack or massive city network failure.

Pinto Valley, AZ

- **Copper Mine Restart Project.** Wonderware Archestra with over 30,000 hard I/O points, developed internal tools to keep the large programming team focused (14 programmers). Developed an automatic code generator utilizing PHP/MSSQL responsible for writing 80% of the boilerplate code. Responsible for fiber network, redundant server hardware, 14+ thin-clients as well as SCADA development. The \$4.5 million dollar SCADA project was completed on time.

Truckee, CA

- **South Truckee Meadows Pilot Project.** The South Truckee Meadows Pilot Project's (STMWRF) main goal is the optimization of ozone-BAC treatment process for potable reuse applications. Developed the MySQL database, offsite storage, website (visualization and backend) for company staff and pilot partners. As the pilot project needs to be constantly monitored the site was developed to include a custom alert notification system to intelligently notify selected users any time an alert is generated. The project utilizes a secure cellular modem for data collection, MySQL, PHP, AJAX, CSS as well as HTML5.

Lincoln, CA

- **Waste Water Treatment Plant.** Jason is the City of Lincoln's sole-source integrator and IT architect for the Waste Water Treatment Plant. He has performed multiple Wonderware SCADA Upgrades at the City of Lincoln WWTP over the years. The Lincoln plant is very similar in size and complexity to the City of Tracy WWTP. The SCADA system has redundant servers, a Historian, three control room workstations, and over a dozen client terminals.



May 25, 2021

AGENDA ITEM

TO: Honorable Mayor Domenighini and Members of the City Council

FROM: Wayne Peabody, Interim City Manager

SUBJECT: **ANNUAL RESOLUTION CONSENTING TO THE IMPOSITION OF Fiscal Year 2021/2022
SOLID WASTE MANAGEMENT PARCEL FEE**

RECOMMENDATION

By motion, adopt a resolution consenting to the extension of service charges imposed on improved real property within the incorporated area of the City of Willows for Fiscal Year 2021/2022 for the use and/or ability to use the Glenn County Solid Waste System.

SITUATION (or BACKGROUND):

Each residential, commercial, and industrial parcel within the City is charged a fee for disposal of solid waste at the Glenn County Disposal site.

Sections 5470 -5473 of the California Health and Safety Code provide for the Board of Supervisors of any county to establish a schedule of fees to be imposed for the operation and maintenance of county waste disposal sites. Section 5471 also provides that prior to imposing this fee, the Board of Supervisors shall obtain the consent of the legislative bodies of the cities.

For the fiscal year 2021/2022 the parcel fee is proposed to be \$42.74 per unit. This reflects no increase from the previous year.

FINANCIAL CONSIDERATIONS

None

ALTERNATE ACTIONS

1. Request additional information from staff
2. Reject staff recommendation and/or direct item to be returned.

RECOMMENDATION

By motion, adopt a resolution consenting to the extension of service charges imposed on improved real property within the incorporated area of the City of Willows for Fiscal Year 2021/2022 for the use and/or ability to use the Glenn County Solid Waste System.

Respectfully submitted,



Wayne Peabody
Interim City Manager

Attachments:

Exhibit A: Resolution XX-2021

CITY OF WILLOWS
RESOLUTION NO. XX-2021

**ANNUAL RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WILLOWS CONSENTING TO THE
EXTENSION OF SERVICE CHARGES IMPOSED ON IMPROVED REAL PROPERTY WITHIN THE
INCORPORATED AREA OF THE CITY OF WILLOWS FOR FISCAL YEAR 2021/2022 FOR THE USE
AND/OR ABILITY TO USE THE GLENN COUNTY SOLID WASTE SYSTEM**

WHEREAS, California Health and Safety Code Section 5471 authorizes the setting and collection of charges for services and facilities furnished by the County in connection with water, sewer, and/or sanitation; and

WHEREAS, California Health and Safety Code Section 5471 dictates that revenues derived from the collection of charges for services shall be used only for the acquisition, construction, reconstruction, maintenance, operation of those water, sewer, and/or sanitation systems; and

WHEREAS, California Health and Safety Code Section 5473 provides for said fees to be collected on the tax roll; and

WHEREAS, the Glenn County Board of Supervisors has determined that it is in the best interest of the residents, businesses, and property owners in the County to have the ability to use the Glenn County Solid Waste System; and

WHEREAS, the Willows City Council, as a member of the Glenn County Waste Management Agency, supports the operation of the Glenn County Solid Waste System; and

WHEREAS, the City of Willows does not have a City solid waste disposal site;

NOW THEREFORE, BE IT RESOLVED that the Willows City Council does hereby consent to the extension of an annual fee of \$42.74 to be imposed upon each dwelling unit and commercial/industrial establishment located on the real improved property within the incorporated areas of the City for the purpose of using or having the ability to use the Glenn County Solid Waste Disposal System.

THIS RESOLUTION was passed by the Willows City Council this 25th day of May 2021 by the following roll call vote

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

ATTEST:

Larry Domennighini, Mayor

Tara Rustenhoven, City Clerk

AGENDA ITEM

TO: Honorable Mayor Warren and Members of the City Council

FROM: Wayne Peabody, Interim City Manager

SUBJECT: Award Weed Abatement Contractor

RECOMMENDATION

Award 2021 Weed Abatement Contractor to Tony Tapia Construction

SITUATION (or BACKGROUND):

As directed in the April 27th meeting, we have placed notices inviting bids for interested contractors for the removal of rubbish, refuse and weeds within the city. The official close date was Thursday May 13th, 2021 at 1500hrs. At that time we received one bid from Tony Tapia Construction. In reviewing the document we find the bidder has met the minimum requirements and is the lowest responsive bidder.

FINANICAL CONSIDERATIONS

Unknown, it is dependent upon the responsiveness of the public. The contract shall not exceed \$15,000.00 without written authorization of the City of Willows.

NOTIFICATION

Local Media Outlets

ALTERNATE ACTIONS

1. Request additional information from staff
 2. Reject staff recommendation and/or direct item to be returned.
-

RECOMMENDATION

Award 2021 Weed Abatement Contractor to Tony Tapia Construction

May 25, 2021

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Wayne Peabody". The signature is fluid and cursive, with the first name "Wayne" and last name "Peabody" clearly distinguishable.

Wayne Peabody
Fire Chief

ATTACHMENT:

Tony Tapia Construction

CITY OF WILLOWS - CONTRACTUAL SERVICES AGREEMENT

Contractor

Tony Tapia Construction.

Project Title

WEED ABATEMENT SERVICES

Budget Account Number

301-4130.150

EXHIBIT "C"

COMPENSATION

Total maximum compensation for the services outlined in this Agreement shall not exceed \$15,000.00.

COMPENSATION

1.1 Contractor shall be compensated for the work outlined herein pursuant to the attached Contractor's Abatement Pricing (as submitted by contractor) and dated April 25, 2021. Compensation shall not exceed \$15,000.00 without written authorization of City upon receipt of 30 days advance notice provided by Contractor.

TERMS OF PAYMENT

1.2 Contractor must provide two (2) copies of an invoice for each parcel cleared by Contractor. Invoices must be submitted to the City of Willows Fire Chief or Designee no later than fifteen (15) days following completion of the last parcel to be cleared. Invoices shall state date of service, Assessor's Parcel Number, location of parcel, and actual work done by Contractor, i.e.; areas done, method of work done (discing, scraping, mowing, debris removal, etc.) and cost of work performed by Contractor at that location.

City of Willows Fire Department will furnish Contractor with a list of Assessor's Parcel Numbers and locations of parcels where clearing is required.

CONTRACTOR'S ABATEMENT PRICING

DUMP BOX SERVICES: (requires written notification from city) **Price Per Parcel**

0-3	Cubic Yards	\$ 821.60
4-6	Cubic Yards	\$ 1,293.11
7-10	Cubic Yards	\$ 1,921.85

DEBRIS REMOVAL: (requires written notification from city) **Price Per Parcel**

0-3	Cubic Yards	\$ 542.34
4-6	Cubic Yards	\$ 1,084.56
7-10	Cubic Yards	\$ 1,807.62

PARCEL MOWING: **Price Per Parcel**

0	-2,500	Square Feet	\$209.58
2,501	-5000	Square Feet	\$251.51
5,001	-7,500	Square Feet	\$272.44
7,501	-10,000	Square Feet	\$314.37
10,001	-21,840	Square Feet	\$356.16
½	-1	Acre	\$398.23
1-2		Acre	\$670.67
3-4		Acre	\$1,257.48
4-5		Acre	\$1,676.64

FIREBREAKS:**Price Per Parcel**

Length of Fire Break		30 ft Width of Fire Break
0	-100	\$192.29
101	-300	\$244.50
301	-500	\$265.54
501	-800	\$286.49
801	-1,000	\$307.44
1,001	-1,200	\$349.37
1,200	-1,400	\$380.80
1,401	-1,600	\$433.17
1,801	-2,000	\$496.07
2,001	-2,500	\$580.17
2,501	-3,000	\$663.75
3,001	-3,500	\$747.58
3,501	-5,000	\$1,082.92

AGENDA ITEM

TO: Honorable Mayor Larry Domenighini and Members of the City Council
FROM: Wayne Peabody, Interim City Manager
SUBJECT: Audit of Sewer Enterprise Fund

RECOMMENDATION

Discuss and provide guidance to Staff.

SITUATION (or BACKGROUND):

At the City council meeting held on May 11, 2021. Mr. Williams requested that an item be placed onto the agenda regarding the State Controller's office to provide an audit of the Sewer Enterprise Fund. As instructed by council the item has been placed on the agenda for discussion and direction to staff.

FINANCIAL CONSIDERATIONS:

None at this time.

NOTIFICATION

N/A

ALTERNATIVES

None at this time.

RECOMMENDATION

Discuss and provide Direction to staff.

Respectfully submitted,



Wayne Peabody