CITY OF SOUTH PASADENA
CITY COUNCIL REGULAR MEETING AGENDA

Council Chamber
1424 Mission Street, South Pasadena, CA 91030

December 4, 2019, at 7:30 p.m.

In order to address the City Council, please complete a Public Comment Card.
Time allotted per speaker is three minutes.
No agenda item may be taken after 11:00 p.m.

South Pasadena City Council Statement of Civility
As your elected governing board we will treat each other, members of the public, and city employees with patience, civility and courtesy as a model of the same behavior we wish to reflect in South Pasadena for the conduct of all city business and community participation. The decisions made tonight will be for the benefit of the South Pasadena community and not for personal gain.

CALL TO ORDER: Mayor Marina Khubesrian, M.D.

ROLL CALL: Councilmembers Michael A. Cacciotti, Diana Mahmud, and Richard D. Schneider, M.D.; Mayor Pro Tem Robert S. Joe; and Mayor Marina Khubesrian, M.D.

PLEDGE OF ALLEGIANCE: Councilmember Diana Mahmud

ELECTION OF OFFICERS / PRESENTATION / STATE OF THE CITY

1. **Election of Mayor and Mayor Pro Tem for the 2019-2020 Term**
2. **Presentation to Outgoing Mayor Marina Khubesrian, M.D.**
3. **Mayor's State of the City Presentation**

PRESENTATIONS

4. **Certificate of Recognition – Laura Farber**

5. **Certificate of Recognition – Shower of Hope**

6. **Certificate of Recognition – League of Women Voters, Pasadena Area**

7. **South Pasadena Tournament of Roses Committee Annual Float Fundraiser Drawing for the Ultimate Tournament of Roses Experience**

PUBLIC COMMENTS AND SUGGESTIONS
(Time limit is three minutes per person)
The City Council welcomes public input. Members of the public may address the City Council by completing a public comment card and giving it to the Chief City Clerk prior to the meeting. At this time, the public may address the City Council on items that are not on the agenda. Pursuant to state law, the City Council may not discuss or take action on issues not on the meeting agenda, except that members of the City Council or staff may briefly respond to statements made or questions posed by persons exercising public testimony rights (Government Code Section 54954.2). Staff may be asked to follow up on such items.

COMMUNICATIONS

8. **Councilmembers Communications**
   Time allotted per Councilmember is three minutes. Additional time will be allotted at the end of the City Council Meeting agenda, if necessary.

9. **City Manager Communications**

10. **Reordering of and Additions to the Agenda**

OPPORTUNITY TO COMMENT ON CONSENT CALENDAR
In order to address the City Council, please complete a Public Comment card. Time allotted per speaker is three minutes. Items listed under the consent calendar are considered by the City Manager to be routine in nature and will be enacted by one motion unless an audience member or Councilmember requests otherwise, in which case the item will be removed for separate consideration. Any motion relating to an ordinance or a resolution shall also waive the reading of the ordinance or resolution and include its introduction or adoption as appropriate.

CONSENT CALENDAR

11. Adoption of a Resolution Declaring the Results from the November 5, 2019 Special Municipal Election

Recommendation
It is recommended that the City Council adopt a Resolution entitled, "A Resolution of the City Council of the City of South Pasadena, California, reciting the fact of the Special Municipal Election held in the City on November 5, 2019, declaring the results, and other matters as provided by law."

12. Approval of 2020 City Council Meeting Schedule

Recommendation
It is recommended that the City Council approve a City Council meeting schedule for the 2020 calendar year.

13. Prepaid Warrants, General City Warrants, and Payroll

Recommendation
Approve the City of South Pasadena Prepaid Warrants Nos. 308948-309110 in the amount $610,363.19 (less $1,510.00 in Voids); and General City Warrants Nos. 309111-309227 in the amount of $574,965.89.

14. Adoption of a Resolution Determining and Establishing an Appropriations Limit for Fiscal Year 2018-19 in Accordance with Article XIII B of the California Constitution

Recommendation Action
It is recommended that the City Council adopt a resolution setting the City of South Pasadena's FY 2018-19 Appropriations Limit.

15. Adoption of a Resolution Approving the City of South Pasadena Investment Policy for Fiscal Year 2019-20

Recommendation Action
It is recommended that the City Council adopt a resolution approving the Fiscal Year 2019-20 Investment Policy.

16. Award of Contract for the Pavement and Asset Management Information Services to Bucknam Infrastructure Group, Inc. for a Total Not-to-Exceed Amount of $68,000

Recommendation
It is recommended that the City Council:

1. Accept a proposal dated September 5, 2019 from Bucknam Infrastructure Group, Inc. for the preparation of Pavement Management Information Services; and
2. Authorize the City Manager to execute the agreements and any amendments with Bucknam for a not-to-exceed amount of $74,800 ($68,000 for the proposal amount and $6,800 for 10% contingency); and
3. Reject all other proposals received.

17. Approve Cooperative Agreement with City of Alhambra for Street Rehabilitation of Pine Street Between Atlantic Boulevard and Huntington Drive in an Amont Not-to-Exceed $119,116

Recommendation
It is recommended that the City Council:

1. Enter into a cooperative agreement with the City of Alhambra to share the construction cost for the street rehabilitation on Pine Street from Atlantic Boulevard to Huntington Drive in an amount not-to-exceed $119,116; and
2. Authorize the City Manager to execute the agreement and any other related documents.

18. Award of Contract for the Preparation of Integrated Water and Wastewater Resources Management Plan to Carollo Engineers, Inc. for a Total Not-to-Exceed Amount of $579,395 for a Period of Two Years

Recommendation
It is recommended that the City Council:

1. Accept a proposal dated September 30, 2019 from Carollo Engineers, Inc. for the preparation of Integrated Water and Wastewater Resources Management Plan; and
2. Authorize the City Manager to execute the agreements and any amendments with Carollo for a not-to-exceed amount of $579,395 ($526,723 for the proposal amount and $52,672 for 10% contingency); and
3. Reject all other proposals received.

19. Discretionary Fund Request from Michael Cacciotti for $1,000 for South Pasadena Beautiful Post Office Project

Recommendation
It is recommended that the City Council approve a Discretionary Fund request by Councilmember Michael Cacciotti for $1,000 for the purpose of assisting South Pasadena Beautiful, a non-profit group, with cost of the re-landscape of the Post Office.

ACTION/DISCUSSION

20. First Reading and Introduction of an Ordinance to Amend Chapter 31 of the South Pasadena Municipal Code to Correct Inconsistent Definitions of a Parkway

Recommendation
It is recommended that the City Council read by title only for first reading, waiving further reading, and introduce an Ordinance to amend Chapter 31 of the South Pasadena Municipal Code to correct inconsistent definitions of a parkway.

21. First Reading and Introduction of an Ordinance Amending IVK "Public Works Commission" of Chapter 2 "Administration" of the South Pasadena Municipal Code to Repeal Section 2.79-6 Sunset to Establish the Public Works Commission as a Permanent Commission

Recommendation

It is recommended that the City Council:

1. Read by title only for first reading, waiving further reading, and introduce an Ordinance amending IVK "Public Works Commission" of Chapter 2 "Administration" of the South Pasadena Municipal Code to repeal Section 2.79-6 Sunset to establish the Public Works Commission as a permanent commission; and
2. Direct staff to continue to work with the Ad Hoc Committee and commissioners to develop clarified roles and responsibilities of the two commissions and return to City Council with a recommendation.

22. Review City Use of Glyphosate consistent with the Natural Resources and Environmental Commission's Recommendation

Recommendation

It is recommended that the City continue using glyphosate in accordance with the City of South Pasadena's Qualified Applicator License with the California Department of Pesticide Regulation.

REPORTS

None

ADJOURNMENT

FUTURE CITY COUNCIL MEETINGS
(OPEN SESSION)

December 18, 2019	Regular City Council Meeting	Council Chamber	7:30 p.m.
January 1, 2020	Regular City Council Meeting	Cancelled	7:30 p.m.
January 15, 2020	Regular City Council Meeting	Council Chamber	7:30 p.m.

PUBLIC ACCESS TO AGENDA DOCUMENTS AND BROADCASTING OF MEETINGS

Prior to meetings, City Council Meeting agenda packets are available at the following locations:

- City Clerk's Division, City Hall, 1414 Mission Street, South Pasadena, CA 91030;
- City website: www.southpasadenaca.gov/agendas

Agenda related documents provided to the City Council are available for public inspection in the City Clerk's Division, and on the City's website at www.southpasadenaca.gov/agendas. During the meeting, these documents will be available for inspection as part of the "Reference Binder" kept in the rear of the City Council Chamber.

Regular meetings are broadcast live on Spectrum Channel 19 and AT&T Channel 99. Meetings are also streamed live via the internet at www.southpasadenaca.gov/agendas.

AGENDA NOTIFICATION SUBSCRIPTION

Individuals can be placed on an email notification list to receive forthcoming agendas by calling the City Clerk's Division at (626) 403-7230.

ACCOMMODATIONS

The City of South Pasadena wishes to make all of its public meetings accessible to the public. Meeting facilities are accessible to persons with disabilities. If special assistance is needed to participate in this meeting, please contact the City Clerk's Division at (626) 403-7230. Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities. Hearing assistive devices are available in the Council Chamber. Notification at least 48 hours prior to the meeting will assist staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting (28 CFR 35.102-35.104 ADA Title II).

I declare under penalty of perjury that I posted this notice of agenda on the bulletin board in the courtyard of City Hall at 1414 Mission Street, South Pasadena, CA 91030, and on the City's website as required by law.

11/27/19	/s/
Date	Maria E. Ayala Chief City Clerk

City Council Agenda Report

ITEM NO. 11

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Maria E. Ayala, Chief City Clerk

SUBJECT: **Adoption of a Resolution Declaring the Results from the November 5, 2019 Special Municipal Election**

Recommendation

It is recommended that the City Council adopt a Resolution entitled, "A Resolution of the City Council of the City of South Pasadena, California, reciting the fact of the Special Municipal Election held in the City on November 5, 2019, declaring the results, and other matters as provided by law."

Discussion/Analysis

The attached resolution must be adopted by the City Council to officially declare the results of the election. A Certificate of the Canvass of the Election Returns is provided by the Los Angeles County Registrar-Recorder/County Clerk (LACRR/CC). The Election results for each measure are itemized as below.

Measure A – Sales Tax Measure

The following question (which was designated as Measure A) was submitted to South Pasadena's registered voters at the November 5, 2019, Special Municipal Election:

"SOUTH PASADENA PUBLIC SAFETY, CITY SERVICES, AND ACCOUTNABILITY MEASURE. To maintain 9-1-1 emergency response times, including to home break-ins and thefts; neighborhood, school and park police patrols, fire/paramedic services, fire station operations, emergency preparedness; retain/attract local businesses; maintain streets/infrastructure; provide other general services and maintain City finances, shall the City of South Pasadena establish a 3/4¢ sales tax providing approximately $1,500,000 annually until ended by voters, all funds remaining in South Pasadena?"	YES
	NO

Total Registered Voters	Total Votes Cast	Yes (Vote Percentage)	No (Vote Percentage)
16,917	4,461	2,985	1,449
Vote Percentage	-	66.913%	32.482%

*Note: The LACRR/CC has confirmed that "provisional ballots" are not listed separately in the *Certificate of Canvass of the Election Returns*, as they are included in the "Precinct Total". Additionally, the variance between the Total Votes Cast and the sum of Yes and No votes is reflective of those ballots cast for which no vote was provided on the Measure – otherwise known as an "undervote".

Measure C – Appointment of City Clerk

The following question (which was designated as Measure C) was submitted to South Pasadena's registered voters at the November 5, 2019, Special Municipal Election:

"APPOINTMENT OF CITY CLERK. Shall the office of city clerk be appointive?"	YES
	NO

Total Registered Voters	Total Votes Cast	Yes (Vote Percentage)	No (Vote Percentage)
16,917	4,461	2,610	1,449
Vote Percentage	-	58.507%	38.198%

*Note: The LACRR/CC has confirmed that "provisional ballots" are not listed separately in the *Certificate of Canvass of the Election Returns*, as they are included in the "Precinct Total". Additionally, the variance between the Total Votes Cast and the sum of Yes and No votes is reflective of those ballots cast for which no vote was provided on the Measure – otherwise known as an "undervote".

Next Steps

Regarding Measure A, the City will process the forms required by the California Department of Tax and Fee Administration (CDTFA) in early 2020. This will include a Resolution Authorizing Examination of Sales and Use Tax Records for CDTFA, which will first be brought to th Council for consideration in January 2020.

Background

On November 5, 2019, a Special Municipal election was conducted in the City of South Pasadena for the purpose of submitting to the voters two ballot measures, Measure A (Sales Tax Measure) and Measure C (Appointment of City Clerk).

In accordance with Resolution No. 7614 (resolution calling for Special Election and placement of tax measure on the ballot) and Resolution No. 7621 (resolution calling for placement of appointive city clerk measure on ballot) the Special Municipal Election was consolidated with the General Election that was conducted on the same day by the County. The ballots were processed entirely and the results canvassed and certified by the LACRR/CC.

Legal Review
The City Attorney has reviewed this item.

Fiscal Impact
An invoice describing the costs to conduct the Special Election with the County has not yet been received by the City Clerk's Office; however, estimated cost provide by the LACRR/CC for the election was $205,000. The cost will be covered from the 2019/2020 General Fund, account number 101-1020-1022-8170.

Environmental Analysis
The action being considered does not constitute a "project" within the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378(a) as it has no potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachments:
1. Resolution Declaring the Results of the November 5, 2019 Special Municipal Election

RESOLUTION NO.___

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, RECITING THE FACT OF THE SPECIAL MUNICIPAL ELECTION HELD ON NOVEMBER 5, 2019, DECLARING THE RESULS AND SUCH OTHER MATTERS AS PROVIDED BY LAW

WHEREAS, a Special Municipal Election was held and conducted in the City of South Pasadena, California, November 5, 2019, pursuant to a declaration fiscal emergency pursuant to Resolution No. 7614; and

WHEREAS, two ballot measures were placed on the Special Municipal Election pursuant to Resolutions 7614 and 7621; and

WHEREAS, a notice of the election was given in time, form and manner as provided by law; voting precincts were properly established; election officers were appointed and that in all respects the election was held and conducted and the votes were cast, received and canvassed and the returns made and declared in time, form and manner as required by the provisions of the Elections Code of the State of California for holding of elections in General Law cities; and

WHEREAS, the County Registrar of Voters, who conducted the election on behalf of the City, canvassed the returns of the election and has certified the results to this City Council, the results are received, attached and made a part hereof as “Exhibit A.”)

WHEREAS, Chief City Clerk Maria Ayala orally certified the results of the Canvass of Vote and reported the breakdown of the total votes cast at the December 4, 2019 meeting of the City Council.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, DOES HEREBY FIND, DETERMINE AND RESOLVE AS FOLLOWS:

SECTION 1. That the two measures voted on at the special election were;

Measure A: SOUTH PASADENA PUBLIC SAFETY, CITY SERVICES, AND ACCOUTNABILITY MEASURE. To maintain 9-1-1 emergency response times, including to home break-ins and thefts; neighborhood, school and park police patrols, fire/paramedic services, fire station operations, emergency preparedness; retain/attract local businesses; maintain streets/infrastructure; provide other general services and maintain City finances, shall the City of South Pasadena establish a 3/4¢ sales tax providing approximately $1,500,000 annually until ended by voters, all funds remaining in South Pasadena?”

and

Measure C: “APPOINTMENT OF CITY CLERK. Shall the office of city clerk be appointive?”

SECTION 2. Regarding Measure A: That the whole number of votes cast in the precincts, inclusive of provisional ballots, except absent voter ballots was 1,166.

That the whole number of absent voter ballots cast in the City was 3,295, making a total of 4,461 votes cast in the City.

SECTION 3. **Regarding Measure C**: That the whole number of votes cast in the precincts, inclusive of provisional ballots, except absent voter ballots was 1,166.

That the whole number of absent voter ballots cast in the City was 3,295, making a total of 4,461 votes cast in the City.

SECTION 4. That the number of votes given for and against Measure A and Measure C are each listed in Exhibit “A” attached.

SECTION 5. The City Council does declare and determine the passage of both Measure A and Measure C, each by a majority of votes cast in the special election.

SECTION 6. The City Clerk shall enter on the records of the City Council of the City, a statement of the result of the election, showing (1) The whole number of votes cast in the City; (2) the title of the measure voted for; and (3) the total number of votes given for and against such measure.

SECTION 7. That the City Clerk shall certify to the passage and adoption of this Resolution, approved and adopted this 4th day of December 2019.

_____
Marina Khubesrian, M.D.
Mayor of the City of South Pasadena

ATTEST:

_____
Evelyn Zneimer, City Clerk

APPROVED AS TO FORM:

_____
Teresa L. Highsmith, City Attorney

EXHIBIT “A”

Los Angeles County
Registrar-Recorder/County Clerk
Certificate of Canvass of the Election Results

Los Angeles County
Registrar-Recorder/County Clerk

Certificate of the Canvass of the Election Returns

I, DEAN C. LOGAN, Registrar-Recorder/County Clerk of the County of Los Angeles, of the State of California, DO HEREBY CERTIFY that pursuant to the provisions of Section 15300 et seq. of the California Elections Code, I did canvass the returns of the votes cast for each elective office and/or measure(s) for

South Pasadena City

at the Local and Municipal Elections, held on the 5th day of November, 2019.

I FURTHER CERTIFY that the Statement of Votes Cast, to which this certificate is attached, shows the total number of ballots cast in said jurisdiction, and that the whole number of votes cast for each candidate and/or measure(s) in said jurisdiction in each of the respective precincts therein, and the totals of the respective columns and the totals as shown for each candidate and/or measure(s) are full, true and correct.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 15th day of November, 2019.

REGISTRAR-RECORDER/COUNTY CLERK
COUNTY OF LOS ANGELES - CALIFORNIA

DEAN C. LOGAN
Registrar-Recorder/County Clerk
County of Los Angeles

FINAL OFFICIAL
STATEMENT OF VOTES CAST
BY PRECINCT

SO PASADENA CITY SPEC MUNI
MEASURE A

LOCATION		REGIST-RATION	BALLOTS CAST	YES	NO
SOUTH PASADENA - 6600008A		5812	355	251	97
VOTE BY MAIL	SERIAL 0061	0	1142	754	382
TOTAL		5812	1497	1005	479
SOUTH PASADENA - 6600011A		5493	432	285	143
VOTE BY MAIL	SERIAL 0062	0	983	673	306
TOTAL		5493	1415	958	449
SOUTH PASADENA - 6600016A		5612	379	234	144
VOTE BY MAIL	SERIAL 0063	0	1170	788	377
TOTAL		5612	1549	1022	521

FINAL OFFICIAL
STATEMENT OF VOTES CAST
BY PRECINCT

SO PASADENA CITY SPEC MUNI
MEASURE A

LOCATION	REGIST-RATION	BALLOTS CAST	YES	NO
PRECINCT TOTAL	16917	1166	770	384
VBM TOTAL	0	3295	2215	1065
GROUP TOTAL	0	0	0	0
GRAND TOTAL	16917	4461	2985	1449

FINAL OFFICIAL
STATEMENT OF VOTES CAST
BY PRECINCT

LOCATION	REGIST-RATION	BALLOTS CAST	SO PASADENA CITY SPEC MUNI MEASURE C YES	SO PASADENA CITY SPEC MUNI MEASURE C NO
SOUTH PASADENA - 6600008A	5812	355	187	156
VOTE BY MAIL SERIAL 0061	0	1142	703	399
TOTAL	5812	1497	890	555
SOUTH PASADENA - 6600011A	5493	432	235	188
VOTE BY MAIL SERIAL 0062	0	983	569	386
TOTAL	5493	1415	804	574
SOUTH PASADENA - 6600016A	5612	379	205	162
VOTE BY MAIL SERIAL 0063	0	1170	711	413
TOTAL	5612	1549	916	575

FINAL OFFICIAL
STATEMENT OF VOTES CAST
BY PRECINCT

SO PASADENA CITY SPEC MUNI
MEASURE C

LOCATION	REGIST-RATION	BALLOTS CAST	YES	NO
PRECINCT TOTAL	16917	1166	627	506
VBM TOTAL	0	3295	1983	1198
GROUP TOTAL	0	0	0	0
GRAND TOTAL	16917	4461	2610	1704

City Council Agenda Report

ITEM NO. 12

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Maria E. Ayala, Chief City Clerk

SUBJECT: **Approval of 2020 City Council Meeting Schedule**

Recommendation

It is recommended that the City Council approve a City Council meeting schedule for the 2020 calendar year.

Discussion/Analysis

Pursuant to South Pasadena Municipal Code, Chapter 2, Article I, Section 2.1 the City Council meetings are held on the first and third Wednesdays of each month. Closed Session begins at 6:30 p.m. and Open Session begins at 7:30 p.m. Adopting a meeting schedule will give the City Council, staff, and the community the ability to plan their schedules accordingly for the upcoming calendar year. The City Council maintains the ability to adjust, cancel, and/or add other meetings as deemed appropriate.

There are three meeting cancellations proposed for the 2020 City Council Meeting Schedule:

- January 1, 2020 – Holiday, City Hall Closed
- April 1, 2020 – Customarily the City Council has cancelled the first April meeting to coincide with South Pasadena Unified School District's Spring Break
- August 5, 2020 – The City Council provided direction at its meeting of June 19, 2013 to cancel the first meeting in August unless there was a special need to conduct City business

Legal Review

The City Attorney has reviewed this item.

Fiscal Impact

There is no fiscal impact associated with this item.

Environmental Analysis

The action being considered does not constitute a "project" within the meaning of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15378(a) as it has no potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachments:
1. Proposed 2020 City Council Meeting Schedule
2. South Pasadena Unified School District 2019-2020 School Year Calendar

ATTACHMENT 1

Proposed 2020 City Council Meeting Schedule

CITY OF SOUTH PASADENA
2020 CITY COUNCIL MEETING SCHEDULE

City Council Meeting Date	Notes
January 1, 2020	**CANCELLED Due to New Year's Day Holiday**
January 15, 2020	
February 5, 2020	
February 19, 2020	
March 4, 2020	
March 18, 2020	
April 1, 2020	**CANCELLED Due to South Pasadena Unified School District's Spring Break**
April 15, 2020	
May 6, 2020	
May 20, 2020	
June 3, 2020	
June 17, 2020	
July 1, 2020	
July 15, 2020	
August 5, 2020	**CANCELLED Due to Council Directive from 6/19/2013 City Council Meeting: No Council Meeting the First Week of August**
August 19, 2020	
September 2, 2020	
September 16, 2020	
October 7, 2020	
October 21, 2020	
November 4, 2020	
November 18, 2020	
December 2, 2020	
December 16, 2020	

ATTACHMENT 2

South Pasadena Unified School District 2019-2020
School Year Calendar

2019 - 2020 CALENDAR

JULY 2019

SUN	MON	TUES	WED	THUR	FRI	SAT	
	1	2	3	4	5	6	4 - Independence Day Holiday
7	8	9	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30	31				

AUGUST 2019

SUN	MON	TUES	WED	THUR	FRI	SAT	
				1	2	3	
4	5	6	7	8	9	10	13 - New Teacher Orientation
11	12	13	14	15	16	17	14- Cert. Staff Mtg & Work Day
18	19	20	21	22	23	24	15- First Day of School
25	26	27	28	29	30	31	**Days = 12/13**

SEPTEMBER 2019

SUN	MON	TUES	WED	THUR	FRI	SAT	
1	2	3	4	5	6	7	2 - Labor Day Holiday
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30						**Days= 20/20**

OCTOBER 2019

SUN	MON	TUES	WED	THUR	FRI	SAT	
c		1	2	3	4	5	7 - Prof. Dev Day, K-12
6	7	8	9	10	11	12	11 - End of 1st quarter (40 days)
13	14	15	16	17	18	19	
20	21	22	23	24	25	26	21-25: Middle School Parent Conf.
27	28	29	30	31			**Days= 22/23**

NOVEMBER 2019

SUN	MON	TUES	WED	THUR	FRI	SAT	
					1	2	1 - End of 1st Trimester (55 days)
3	4	5	6	7	8	9	8 - Elem Grading Day / 6-12 PD
10	11	12	13	14	15	16	11 - Veterans Day Holiday
17	18	19	20	21	22	23	18-22 Elem Parent Conferences
24	25	26	27	28	29	30	25-29: Thanksgiving Break; 28-29 holidays
							Days= 14/15

DECEMBER 2019

SUN	MON	TUES	WED	THUR	FRI	SAT	
1	2	3	4	5	6	7	Dec. 20 - End of 1st semester (83 days)
8	9	10	11	12	13	14	- End of 2nd quarter (43 days)
15	16	17	18	19	20	21	Dec 23-Jan 3: Winter Break
22	23	24	25	26	27	28	24,25,31 - Christmas & Local Holidays
29	30	31					**Days = 15/15**

JANUARY 2020

SUN	MON	TUES	WED	THUR	FRI	SAT	
			1	2	3	4	1 - New Year's Day Holiday
5	6	7	8	9	10	11	6 - Elem PD/ 6-12 Work day
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	20 - MLK Holiday
26	27	28	29	30	31		**Day: 18/19**

FEBRUARY 2020

SUN	MON	TUES	WED	THUR	FRI	SAT	
						1	(Leap Year - Feb, 29 days)
2	3	4	5	6	7	8	
9	10	11	12	13	14	15	14 & 17 - Presidents' Day Holidays
16	17	18	19	20	21	22	
23	24	25	26	27	28	29	**Days= 18/18**

MARCH 2020

SUN	MON	TUES	WED	THUR	FRI	SAT	
1	2	3	4	5	6	7	2 - Prof. Dev Day, K-12
8	9	10	11	12	13	14	6 - End of 2nd Trimester (68 days)
15	16	17	18	19	20	21	16-20 Elem Parent Conferences
22	23	24	25	26	27	28	13 - End of 3rd quarter (45 days)
29	30	31					Mar. 30 - Apr. 3 Spring Break
							Days = 19/20

APRIL 2020

SUN	MON	TUES	WED	THUR	FRI	SAT	
			1	2	3	4	Mar. 30 - Apr. 3 Spring Break
5	6	7	8	9	10	11	3 - Local Holiday
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30			**Days = 19/20**

MAY 2020

SUN	MON	TUES	WED	THUR	FRI	SAT	
					1	2	
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	25 - Memorial Day Holiday
31							**Days = 20/20**

JUNE 2020

SUN	MON	TUES	WED	THUR	FRI	SAT	
	1	2	3	4	5	6	- End of 2nd Semester (97 days)
7	8	9	10	11	12	13	- End of 4th quarter (52 days)
14	15	16	17	18	19	20	- End of 3rd Trimester (57 days)
21	22	23	24	25	26	27	**Days = 3/3**
28	29	30					**Required student days = 180**

3 - Last day of school

Required teacher days = 185

2019 - 2020 CALENDAR

City Council Agenda Report

ITEM NO. 13

DATE: December 04, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Karen Aceves & Lucy Demirjian, Interim Finance Director

SUBJECT: **Approval of Prepaid Warrants in the Amount of $610,363.19 less $1,510.00 in Voids, General City Warrants in the Amount of $574,965.89.**

Recommendation Action
It is recommended that the City Council approve the Warrants as presented.

Fiscal Impact

Prepaid Warrants:		
Warrant # 308948-309110	$	610,363.19
Void	$	(1,510.00)
General City Warrants:		
Warrant # 309111-309227	$	574,965.89
Void	$	0
Wire Transfers (LAIF)	$	0
Wire Transfers (RSA)	$	0
Wire Transfers (Acct # 2413)	$	0
Wire Transfers (Acct # 1936)	$	0
RSA:		
Prepaid Warrants	$	0
General City Warrants	$	0
Total	$	1,183,819.08

Commission Review and Recommendation
This matter was not reviewed by a Commission.

Legal Review
The City Attorney has not reviewed this item.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its

inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website.

Attachments:

1. Warrant Summary
2. Prepaid Warrant List
3. General City Warrant List
4. Prepaid & General Warrant Voids

ATTACHMENT 1
Warrant Summary

City of South Pasadena
Demand/Warrant Register **Date** 12.04.19

Recap by fund	Fund No.	Amounts		
		Prepaid	Written	Payroll
General Fund	101	341,823.22	373,214.78	
Insurance Fund	103	3,045.42	-	
Street Improvement Program	104	64,620.00	71,067.73	
Facilities & Equip.Cap. Fund	105	2,247.36	-	
Local Transit Return "A"	205	12,105.31	1,730.17	
Local Transit Return "C"	207	172.75	1,157.77	
TEA/Metro	208	-	-	
Sewer Fund	210	576.45	3,021.10	
CTC Traffic Improvement	211	-	-	
Street Lighting Fund	215	63,819.87	25,816.17	
Public,Education & Govt Fund	217	-	-	
Clean Air Act Fund	218	-	-	
Business Improvement Tax	220	-	-	
Gold Line Mitigation Fund	223	-	-	
Mission Meridian Public Garage	226	-	804.13	
Housing Authority Fund	228	375.00	-	
State Gas Tax	230	9,189.77	12,434.99	
County Park Bond Fund	232	1,839.78	4,537.41	
Measure R	233	-	-	
Measure M	236	-	-	
MSRC Grant Fund	238	-	-	
Measure W	239	2,356.13	4,586.25	
Measure H	241	-	-	
Bike & Pedestrian Paths	245	-	-	
BTA Grants	248	-	-	
Golden Street Grant	249	-	-	
Capital Growth Fund	255	-	-	
CDBG	260	-	-	
Asset Forfeiture	270	-	-	
Police Grants - State	272	-	-	
Homeland Security Grant	274	-	-	
Park Impact Fees	275	-	-	
HSIP Grant	277	-	-	
Arroyo Seco Golf Course	295	-	-	
Sewer Capital Projects Fund	310	-	-	
Water Fund	500	70,442.11	76,395.39	
Water Efficinency Fund	503	-	200.00	
2016 Water Revenue Bonds Fund	505	-	-	
Public Financing Authority	550	-	-	
Payroll Clearing Fund	700	37,750.02	-	
	Column Totals:	610,363.19	574,965.89	-

Recap by fund	Fund No.	Amounts		
		Prepaid	Written	Payroll
RSA	227	-	-	-
	RSA Report Totals:	-	-	-

City Report Totals:	1,185,329.08
Wire Transfer - LAIF	-
Wire Transfer - RSA	-
Wire Transfer - Acct # 2413	-
Wire Transfer - Acct # 1936	-
Voids - Prepaid	(1,510.00)
Voids - General Warrant	-
Grand Report Total:	**1,183,819.08**

Marina Khubesrian M.D., Mayor

Karen Aceves / Lucy Demirjian, Interim Finance Director

Evelyn G. Zneimer, City Clerk

ATTACHMENT 2
Prepaid Warrant List

Accounts Payable

Check Detail

User: ealvarez
Printed: 11/26/2019 - 1:24PM

Check Number	Check Date		Amount
IMPR8032 - 4Imprint, Inc.			
309008	11/14/2019		
	Inv 7759808	Walk Bike to School Participation Lanyar	451.90
309008 Total:			451.90
IMPR8032 - 4Imprint, Inc. Total:			451.90
ACTM3010 - Accountemps			
308957	11/11/2019		
	Inv 54562479	Contract Services for FinanceTemp. Svcs	1,386.00
308957 Total:			1,386.00
309056	11/25/2019		
	Inv 54408312	Finance Temporary Svcs. Kang,Somin for	1,782.00
	Inv 54655265	Finance Temporary Svcs. Kang,Somin for	1,856.25
	Inv 54752035	Finance Temporary Svcs. Kang,Somin for	1,386.00
309056 Total:			5,024.25
ACTM3010 - Accountemps Total:			6,410.25
ACHG2013 - A-Check Global			
308958	11/11/2019		
	Inv 59-0597149	Payment for Electronic Background Servic	115.75
308958 Total:			115.75
309057	11/25/2019		
	Inv 59-0600667	Payment for Electronic Background Servic	179.00
309057 Total:			179.00
ACHG2013 - A-Check Global Total:			294.75
ATGC8530 - Acorn Technology Corp.			
309058	11/25/2019		
	Inv 2086	CO # 200	140.00
	Inv 2087	CO # 212	12.50
	Inv 2089	CO # 213	62.50
	Inv 2090	CO # 209	37.50
	Inv 2091	CO # 202	280.00

Check Number	Check Date		Amount
Inv 2092	CO # 210		25.00
Inv 2093	CO # 205		127.50
Inv 2094	CO # 211		25.00
Inv 2095	CO # 181		120.00
Inv 2098	CO # 60		462.50
Inv 2099	CO # 01-142		617.50
Inv 2100	CO # 208		73.75
Inv 2101	Onsite IT Hours		14,805.23
Inv 52561	Remote and Onsite IT Hours		-483.75
309058 Total:			16,305.23
ATGC8530 - Acorn Technology Corp. Total:			16,305.23
ACTI8030 - Action Sales			
308959	11/11/2019		
Inv 1897338-00	Annual P.O. for Dept. Supplies FY19-20		485.13
308959 Total:			485.13
ACTI8030 - Action Sales Total:			485.13
AFLA7010 - AFLAC			
309009	11/14/2019		
Inv 105011	Optional Insurance 10/19 Account # J5D65		1,051.34
309009 Total:			1,051.34
309059	11/25/2019		
Inv 105011	Optional Insurance 10/19		1,051.34
309059 Total:			1,051.34
AFLA7010 - AFLAC Total:			2,102.68
AIR6010 - Airgas USA LLC			
309010	11/14/2019		
Inv 9966202864	Oxygen Cylinder Rental		208.45
309010 Total:			208.45
AIR6010 - Airgas USA LLC Total:			208.45
ALH0181 - Alhambra Hospital Med Ctr			
308960	11/11/2019		
Inv 07.22.19	Annual P.O. for FD Medical Supplies		209.78
Inv 07.31.19	Annual P.O. for FD Medical Supplies		153.32
Inv 08.11.19	Annual P.O. for FD Medical Supplies		173.06
Inv 08.14.19	Annual P.O. for FD Medical Supplies		221.53
Inv 09.03.19	Annual P.O. for FD Medical Supplies		254.99
308960 Total:			1,012.68

Check Number	Check Date		Amount
ALH0181 - Alhambra Hospital Med Ctr Total:			1,012.68
ALL0197 - All Star Fire Equipment, Inc.			
309060	11/25/2019		
	Inv 217001	Fire Safety Clothing / Expense	2,398.49
	Inv 218467	Safety Clothing / Expense	449.01
	Inv 219353	Safety Clothing / Expense	2,599.75
309060 Total:			5,447.25
ALL0197 - All Star Fire Equipment, Inc. Total:			5,447.25
AMDA6710 - Almeda, Jose L.			
309011	11/14/2019		
	Inv 09.03.19	PW Mileage Reimb. Expense	28.19
	Inv 09.09.19	PW Mileage Reimb. Expense	84.56
	Inv 09.16.19	PW Mileage Reimb. Expense	84.56
	Inv 10.18.19	PW Mileage Reimb. Expense	28.19
309011 Total:			225.50
AMDA6710 - Almeda, Jose L. Total:			225.50
AMZN8030 - Amazon/SYNCB			
308961	11/11/2019		
	Inv 437379568896	Supplies	96.61
	Inv 444585734779	Supplies	57.99
	Inv 444897858363	Supplies	299.45
	Inv 448648688547	Supplies	43.52
	Inv 457976936868	Supplies	45.98
	Inv 465434777363	Supplies	23.50
	Inv 483994897569	Supplies	14.90
	Inv 534958653994	Supplies	17.40
	Inv 558547799563	Supplies	29.88
	Inv 665573334948	Supplies	60.73
	Inv 774864754769	Supplies	54.94
	Inv 939584684388	Supplies	519.00
	Inv 985895563896	Supplies	36.07
	Inv 994484368946	Supplies	140.16
308961 Total:			1,440.13
AMZN8030 - Amazon/SYNCB Total:			1,440.13
AME0229 - Ameritas			
309012	11/14/2019		
	Inv P/R/E 11/05/19	Vision Ins. November 2019 (010-19062 Cit	3,236.60
309012 Total:			3,236.60

Check Number	Check Date		Amount
AME0229 - Ameritas Total:			3,236.60
ARM6010 - Armorcast Products Co.			
309013	11/14/2019		
Inv 0201262-IN		Purchase of Water Meter Vaultat 613 Mis	1,248.68
309013 Total:			1,248.68
ARM6010 - Armorcast Products Co. Total:			1,248.68
ATCN9011 - AT & T			
309014	11/14/2019		
Inv 000013791510		9391062308 09/20-10/19/19	6,027.33
309014 Total:			6,027.33
309061	11/25/2019		
Inv 000013810432		9391036942 09/27-10/26/19	274.93
Inv 000013810433		9391036943 09/27-10/26/19	275.14
Inv 000013810796		CLAPDSOPAS 09/27-10/26/19	317.56
309061 Total:			867.63
ATCN9011 - AT & T Total:			6,894.96
AT&T5006 - AT & T U-Verse			
309062	11/25/2019		
Inv 284743823			78.80
309062 Total:			78.80
AT&T5006 - AT & T U-Verse Total:			78.80
AT&T5011 - AT&T			
309063	11/25/2019		
Inv 331 841-0802		Monthly Service 11/07-12/06/19	50.46
309063 Total:			50.46
AT&T5011 - AT&T Total:			50.46
CIN4011 - AT&T --Cingular Wireless			
309015	11/14/2019		
Inv 287288006612x10		PW Mobile Devices 09/03-10/02/19	1,652.55
309015 Total:			1,652.55
309064	11/25/2019		
Inv 28728806612x11		PW Mobile Devices 10/03-11/02/19	1,661.49
309064 Total:			1,661.49

CIN4011 - AT&T --Cingular Wireless Total:			3,314.04
ATH0292 - Athens Disposal Company			
309065	11/25/2019		
	Inv 5952958	Bus Stop Barrel Pickup 11/30/19	2,079.41
	Inv 6878471	Bus Stop Barrel Pickup 6/30/19	2,079.41
	Inv 7182489	Bus Stop Barrel Pickup 8/31/19	2,148.83
	Inv 7316413	Bus Stop Barrel Pickup 9/30/19	2,148.83
	Inv 7456699	Bus Stop Barrel Pickup 10/31/19	2,148.83
309065 Total:			10,605.31
ATH0292 - Athens Disposal Company Total:			10,605.31
ATSS6010 - Athens Services			
309066	11/25/2019		
	Inv 7316412	Athens Services Mission / Meridian Garag	750.00
	Inv 7456698	Athens Services Mission / Meridian Garag	750.00
309066 Total:			1,500.00
ATSS6010 - Athens Services Total:			1,500.00
PTBK297 - Baktiari, Peter			
308962	11/11/2019		
	Inv 00408096	Refund for Soils Report # 00408096	2,000.00
308962 Total:			2,000.00
PTBK297 - Baktiari, Peter Total:			2,000.00
BRDE6710 - Bardales Jr., Luis			
309016	11/14/2019		
	Inv 10.06.19	PW Mileage Reimb.	22.73
309016 Total:			22.73
BRDE6710 - Bardales Jr., Luis Total:			22.73
RBBG8032 - Bergman, Rebecca			
308963	11/11/2019		
	Inv Fall 2019	Class Instructor: Charm YouthProject Fa	130.00
308963 Total:			130.00
RBBG8032 - Bergman, Rebecca Total:			130.00
BLWT4011 - Black & White Emergency Vehicles			
308964	11/11/2019		

Check Number	Check Date	Amount
Inv 3266 Installation of Emergency Equip. for PD		2,247.36
308964 Total:		2,247.36
BLWT4011 - Black & White Emergency Vehicles Total:		2,247.36
DABN8267 - Bohan, Diana		
309067	11/25/2019	
Inv October 2019 Instruct Yoga Class October 2019		288.00
309067 Total:		288.00
DABN8267 - Bohan, Diana Total:		288.00
DBAR3011 - Brinks Inc. (Formerly Dunbar Inc.)		
309068	11/25/2019	
Inv 4491946 Armored Car Excess Svcs. 10/19		2,398.29
309068 Total:		2,398.29
DBAR3011 - Brinks Inc. (Formerly Dunbar Inc.) Total:		2,398.29
BRMR8267 - BRIT West Soccer		
308965	11/11/2019	
Inv Fall 2019 Class Instructor: Soccer (9 Classes Fall		7,589.40
308965 Total:		7,589.40
BRMR8267 - BRIT West Soccer Total:		7,589.40
CANA4011 - California Narcotic Officers' Association		
308966	11/11/2019	
Inv Dec.4-6.19 Training Class for Ofcr, Gutierrez		225.00
308966 Total:		225.00
CANA4011 - California Narcotic Officers' Association Total:		225.00
CMAN2920 - Campos, Antonio		
308967	11/11/2019	
Inv R102485/106590 Refund Deposit for WMB 9/21/19		500.00
308967 Total:		500.00
CMAN2920 - Campos, Antonio Total:		500.00
CRSC2013 - Capital Research & Consulting LLC		
308968	11/11/2019	
Inv 2725 Quarterly Payment for City's 457 Plan		2,679.49

Check Number	Check Date		Amount
308968 Total:			2,679.49
CRSC2013 - Capital Research & Consulting LLC Total:			2,679.49
CWNC2501 - Carl Warren & Company			
309017	11/14/2019		
	Inv 1890976-1891002	Library Claims - Admin Fee 10/1-11/01/19	1,602.42
309017 Total:			1,602.42
CWNC2501 - Carl Warren & Company Total:			1,602.42
CAT0700 - Catering Systems Inc.			
309069	11/25/2019		
	Inv 5273	Senior Meal Program 10/15-10/18/19	1,506.60
	Inv 5281	Senior Meal Program 10/21-10/25/19	1,852.20
309069 Total:			3,358.80
CAT0700 - Catering Systems Inc. Total:			3,358.80
CBEC8110 - CBE Los Angeles			
309018	11/14/2019		
	Inv IN2203013	Finance Copier Toner	46.91
309018 Total:			46.91
CBEC8110 - CBE Los Angeles Total:			46.91
ALCH4610 - Chairez, Alfonso			
308969	11/11/2019		
	Inv 233927	Refund Citation - Admin Hearing Citation	50.00
308969 Total:			50.00
ALCH4610 - Chairez, Alfonso Total:			50.00
CHA7788 - Chan, Benjamin			
308970	11/11/2019		
	Inv Fall 2019	Class Instructor: Tai Chi & Kung Fu (Fal	312.00
308970 Total:			312.00
CHA7788 - Chan, Benjamin Total:			312.00
CHAG8032 - Chang, Emily			
308971	11/11/2019		
	Inv Summer 2019	Class Instructor: Payment forKindermusi	118.95

Check Number	Check Date		Amount
308971 Total:			118.95
CHAG8032 - Chang, Emily Total:			118.95
JMCB6710 - Cipres Bravo, Jose Manuel			
309019	11/14/2019		
	Inv 10.05.19	PW Reimb. Mileage	25.40
	Inv 10.06.19	PW Reimb. Mileage	25.40
309019 Total:			50.80
JMCB6710 - Cipres Bravo, Jose Manuel Total:			50.80
CSM8030 - City of San Marino			
309070	11/25/2019		
	Inv 0000085	Co-op San Marino Agreement	34,258.19
309070 Total:			34,258.19
CSM8030 - City of San Marino Total:			34,258.19
SOU5402 - City of South Pasadena PD Petty Cash			
308972	11/11/2019		
	Inv 11.04.19	Reimb. Petty Cash	426.36
308972 Total:			426.36
SOU5402 - City of South Pasadena PD Petty Cash Total:			426.36
SOU5343 - City of South Pasadena-Recreation			
308973	11/11/2019		
	Inv 08.16.19	Reimb. Petty Cash	28.69
	Inv 09.09.19	Reimb. Petty Cash	24.88
	Inv 10.04.19	Reimb. Petty Cash	96.50
	Inv 10.16.19	Reimb. Petty Cash	88.72
	Inv 10.17.19	Reimb. Petty Cash	14.21
	Inv 10.22.19	Reimb. Petty Cash	22.03
	Inv 10.25.19	Reimb. Petty Cash	14.48
	Inv 10.29.19	Reimb. Petty Cash	86.11
	Inv 10.30.19	Reimb. Petty Cash	114.87
308973 Total:			490.49
SOU5343 - City of South Pasadena-Recreation Total:			490.49
CHWP2010 - Colantuono,Highsmith & Whatley,PC			
309020	11/14/2019		
	Inv 40611	General Services	10,141.62
	Inv 40612	Case 2	21,735.52
	Inv 40613	Case 1	98.00

Check Number	Check Date		Amount
Inv 40614	Labor & Employement		3,887.50
Inv 40615	Misc. Litigation		19,949.55
Inv 40616	Special Projects		3,120.06
Inv 40617	Tax & Assesment		195.00
Inv 40618	Gardena v. RWQCB		1,127.45
Inv 40619	Water & Utilities		24.50
309020 Total:			60,279.20
CHWP2010 - Colantuono,Highsmith & Whatley,PC Total:			60,279.20
CMME4011 - Commline Inc.			
309071	11/25/2019		
Inv 0184252-IN	6 Month Contract 7/1/19-12/31/19		7,032.00
309071 Total:			7,032.00
CMME4011 - Commline Inc. Total:			7,032.00
CRDA1021 - Corodata Records Management			
308974	11/11/2019		
Inv RS4519023	Record Mgmt. Storage July 2019		788.75
Inv RS4532321	Record Mgmt. Storage September 2019		379.66
308974 Total:			1,168.41
CRDA1021 - Corodata Records Management Total:			1,168.41
CRSR2010 - Corodata Shredding Inc.			
308975	11/11/2019		
Inv DN 1243146	Corodata Shredding Services -Library ,		156.22
308975 Total:			156.22
CRSR2010 - Corodata Shredding Inc. Total:			156.22
CRSN5011 - CrewSense, LLC			
309072	11/25/2019		
Inv 0013384	Command Sharing 08/01/19-08/31/19		99.99
Inv 0013661	Command Sharing 09/01/18-08/31/19		5,457.68
Inv 0013685	Command Sharing 9/1/19-08/31/20		3,834.60
309072 Total:			9,392.27
CRSN5011 - CrewSense, LLC Total:			9,392.27
DROW8010 - D & R Office Works, Inc.			
309021	11/14/2019		
Inv 0115841-IN	Finance Office Supplies		2,093.64
309021 Total:			2,093.64

Check Number	Check Date		Amount
DROW8010 - D & R Office Works, Inc. Total:			2,093.64
DSP0755 - D & S Printing			
309022	11/14/2019		
	Inv 8516	2M All Night Parking Permit	443.48
309022 Total:			443.48
309073	11/25/2019		
	Inv 8436	Printing & Duplication	766.50
309073 Total:			766.50
DSP0755 - D & S Printing Total:			1,209.98
DEL4000 - Dell Marketing L.P.			
309023	11/14/2019		
	Inv 10348192696	8GB Upgrade to Library Computer	893.43
309023 Total:			893.43
DEL4000 - Dell Marketing L.P. Total:			893.43
DEL0771 - Delta Dental			
308948	10/31/2019		
	Inv BE003619350	Dental Ins. November 2019	11,207.66
308948 Total:			11,207.66
DEL0771 - Delta Dental Total:			11,207.66
DIG0800 - Digital Telecommunications Corp			
309074	11/25/2019		
	Inv 36583	IT - Phones 12/01-12/31/19	900.00
	Inv 36647	IT - Phones 11/07/19	450.00
309074 Total:			1,350.00
DIG0800 - Digital Telecommunications Corp Total:			1,350.00
DTV5012 - DIRECTV			
309024	11/14/2019		
	Inv 36846841708	EOC Disaster Preparedness Commun	64.90
309024 Total:			64.90
DTV5012 - DIRECTV Total:			64.90
EJAS2010 - Emanuels Jones & Associates			

Check Number	Check Date		Amount
309075	11/25/2019		
	Inv F19-11-11	Emmanuel Jones & Associates Legislative	2,500.00
309075 Total:			2,500.00
EJAS2010 - Emanuels Jones & Associates Total:			2,500.00
ENT8216 - Entersect			
309025	11/14/2019		
	Inv 319EP30995	EPO Annual Contract - Police Dept.	1,000.00
309025 Total:			1,000.00
ENT8216 - Entersect Total:			1,000.00
ENVMT601 - Environmental Management Technologies			
309026	11/14/2019		
	Inv 18409	Drum for Oil Collection	35.00
309026 Total:			35.00
ENVMT601 - Environmental Management Technologies Total:			35.00
FRJS2920 - Fairbanks, Jessika			
308976	11/11/2019		
	Inv R104450/106592	Refund Deposit for GP Youth House 09/28/	250.00
308976 Total:			250.00
FRJS2920 - Fairbanks, Jessika Total:			250.00
PRFL2010 - Fellers, Paige			
309027	11/14/2019		
	Inv 08	Layout Design Graphs, Charts,and Bar fo	1,160.00
309027 Total:			1,160.00
PRFL2010 - Fellers, Paige Total:			1,160.00
COBR7131 - Flex Advantage			
308949	10/31/2019		
	Inv 115021	Reimn. Retirees Oct. Admin Fee	66.00
	Inv P/R/E 10/27/19	Reimn. Retirees Batch: 1036456	1,626.49
308949 Total:			1,692.49
COBR7131 - Flex Advantage Total:			1,692.49
FOCH2920 - Foldes, Charlie			
308977	11/11/2019		

Check Number	Check Date	Amount
Inv R105244/106593 Refund WMB Deposit for 10/05/19		500.00
308977 Total:		500.00
FOCH2920 - Foldes, Charlie Total:		500.00
GAL7788 - Gale, Donna		
308978	11/11/2019	
Inv Fall 2019 Class Instructor: Dance and Cooking (5 C		2,340.00
308978 Total:		2,340.00
GAL7788 - Gale, Donna Total:		2,340.00
GPPT9090 - Gopher Patrol		
308979	11/11/2019	
Inv 360037 Gopher Patrol / Abatement		250.00
Inv 365153 Gopher Patrol / Abatement		250.00
Inv 365154 Gopher Patrol / Abatement		250.00
Inv 365470 Gopher Patrol / Abatement		95.00
308979 Total:		845.00
GPPT9090 - Gopher Patrol Total:		845.00
GRE1270 - Greg's Automotive Services		
309028	11/14/2019	
Inv 14162 Battery for PW Forklift		137.89
309028 Total:		137.89
GRE1270 - Greg's Automotive Services Total:		137.89
CRHY8067 - Hartney, Corey		
309029	11/14/2019	
Inv Fall 2019 Class Instructor. Basketball (2 Classes		828.75
309029 Total:		828.75
CRHY8067 - Hartney, Corey Total:		828.75
HDLC3011 - HdL Coren & Cone		
309030	11/14/2019	
Inv 0027198-IN CAFR FY19-20 Statistical Report Package		845.00
Inv 0027333-IN Property Tax Review Svcs. October - Dece		2,888.16
309030 Total:		3,733.16
HDLC3011 - HdL Coren & Cone Total:		3,733.16

Check Number	Check Date		Amount
MGHZ4610 - Hernandez, Miguel			
309031	11/14/2019		
	Inv 233131916	Citation Adminstration AppealGranted Ci	50.00
309031 Total:			50.00
MGHZ4610 - Hernandez, Miguel Total:			50.00
HFBL2920 - Hoffman, Bill			
308980	11/11/2019		
	Inv R96515/106594	Refund Deposit WMB 10/12/19	500.00
308980 Total:			500.00
HFBL2920 - Hoffman, Bill Total:			500.00
HOM1515 - Home Depot Credit Services			
309076	11/25/2019		
	Inv 1542856	Citywide Supplies	154.12
	Inv 2542658	Citywide Supplies	50.23
	Inv 3010885	Citywide Supplies	93.89
	Inv 3292229	Citywide Supplies	234.44
	Inv 3380345	Citywide Supplies	31.76
	Inv 3974998	Citywide Supplies	20.24
	Inv 4303501	Citywide Supplies	142.28
	Inv 4544133	Citywide Supplies	165.65
	Inv 5120248	Citywide Supplies	183.07
	Inv 5292938	Citywide Supplies	298.07
	Inv 5511591	Citywide Supplies	39.35
	Inv 604775	Citywide Supplies	370.98
	Inv 6120029	Citywide Supplies	246.07
	Inv 6514459	Citywide Supplies	128.93
	Inv 66119565	Citywide Supplies	268.18
	Inv 6772268	Citywide Supplies	546.07
	Inv 6970617	Citywide Supplies	963.91
	Inv 7012202	Citywide Supplies	314.24
	Inv 7124515	Citywide Supplies	430.93
	Inv 7742930	Citywide Supplies	136.79
	Inv 8021751	Citywide Supplies	43.40
	Inv 8285390	Citywide Supplies	359.37
	Inv 9283758	Citywide Supplies	461.25
	Inv 9283759	Citywide Supplies	129.53
	Inv 9741762	Citywide Supplies	56.33
309076 Total:			5,869.08
HOM1515 - Home Depot Credit Services Total:			5,869.08
ITCR2501 - Intercare Holdings Insurance Svcs			
308981	11/11/2019		
	Inv 76-005950	Payment for Workers Compensation Claims	1,443.00
308981 Total:			1,443.00

ITCR2501 - Intercare Holdings Insurance Svcs Total:		1,443.00
INT2132 - InTime Services Inc.		
309077	11/25/2019	
Inv 9811	PD Scheduling System 12 Months	4,800.00
309077 Total:		4,800.00
INT2132 - InTime Services Inc. Total:		4,800.00
JHA307 - John L. Hunter Associates, Inc.		
309078	11/25/2019	
Inv SOPASNP0719	Professional Services for City's MS4 NPD	2,356.13
309078 Total:		2,356.13
JHA307 - John L. Hunter Associates, Inc. Total:		2,356.13
KOAC6010 - KOA		
309032	11/14/2019	
Inv JB91076-2	Professioanl Engineering Design Services	36,540.00
Inv JB91076-3	Professioanl Engineering Design Services	28,080.00
309032 Total:		64,620.00
KOAC6010 - KOA Total:		64,620.00
KLMA2013 - Lee Ko, Mariam		
309079	11/25/2019	
Inv 10.07.19	Reimb. for Halloween Event Supplies & Re	108.23
Inv 10.30.19	Reimb. for Halloween Event Supplies & Re	19.95
Inv 11.20.19	Reimb. for MSFT Surface Pro 4keyboard R	89.95
309079 Total:		218.13
KLMA2013 - Lee Ko, Mariam Total:		218.13
LCW7456 - Liebert Cassidy Whimore		
308982	11/11/2019	
Inv 1486936	Personnel Matters - 9/19	1,658.00
Inv 1486937	Personnel Matters - 9/19	684.00
Inv 1486938	Personnel Matters - 9/19	129.00
Inv 1486939	Personnel Matters - 9/19	1,900.00
308982 Total:		4,371.00
LCW7456 - Liebert Cassidy Whimore Total:		4,371.00
KVMC6710 - Machado, Kelvin		

Check Number	Check Date		Amount
309033	11/14/2019		
	Inv 08.25.19	PW Mileage Reimb.	18.33
	Inv 09.11.19	PW Mileage Reimb.	18.10
	Inv 09.13.19	PW Mileage Reimb.	36.43
	Inv 09.14.19	PW Mileage Reimb.	18.33
	Inv 10.23.19	PW Mileage Reimb.	18.33
309033 Total:			109.52
KVMC6710 - Machado, Kelvin Total:			109.52
VCMA6710 - Magana, Victor			
309034	11/14/2019		
	Inv 07.17.19	PW Mileage Reimb.	23.90
	Inv 07/04/19	PW Mileage Reimb.	61.94
309034 Total:			85.84
VCMA6710 - Magana, Victor Total:			85.84
DIMD1010 - Mahmud, Diana			
309080	11/25/2019		
	Inv 11.18.19	League Conference Parking Reimb.	30.00
309080 Total:			30.00
DIMD1010 - Mahmud, Diana Total:			30.00
MDIA2010 - Media 360			
309035	11/14/2019		
	Inv 903983	South Pasadena Promotional Video	12,924.80
309035 Total:			12,924.80
MDIA2010 - Media 360 Total:			12,924.80
MDLC5270 - Mendez, Lucia			
308983	11/11/2019		
	Inv R106231/106481	Reimb. Due to Cancelled Class(Low Enrol	85.00
308983 Total:			85.00
MDLC5270 - Mendez, Lucia Total:			85.00
MPLC8021 - Motion Picture Licensing Corp.			
308984	11/11/2019		
	Inv 504230004	Payment for Umbrella Licensing Fee 10/01	594.28
308984 Total:			594.28

Check Number	Check Date		Amount
MPLC8021 - Motion Picture Licensing Corp. Total:			594.28
NWBT8120 - New Shine Bathtub Refinishing			
309036	11/14/2019		
	Inv 1528	Reglazed Bathub @ 308 San Pascual	375.00
309036 Total:			375.00
NWBT8120 - New Shine Bathtub Refinishing Total:			375.00
PEG4590 - NUFIC			
308950	10/31/2019		
	Inv P/R/E 10/27/19	A.D.D Ins. - Basic - October 2019	1,086.55
308950 Total:			1,086.55
PEG4590 - NUFIC Total:			1,086.55
OSSS3010 - Olympic Staffing Services			
308985	11/11/2019		
	Inv 210659	Contract Svcs. Managment Service Temp Em	581.25
	Inv 210765	Contract Svcs. Managment Service Temp Em	581.25
	Inv 210874	Contract Svcs. Managment Service Temp Em	581.25
	Inv 210875	Finance Temporary Staffing Joy Lewis w/e	418.50
	Inv 210972	Contract Svcs. Managment Service Temp Em	581.25
	Inv 211076	Contract Svcs. Managment Service Temp Em	581.25
308985 Total:			3,324.75
309081	11/25/2019		
	Inv 210973	Finance Temporary Staffing Joy Lewis w/e	505.69
	Inv 211175	Managment Service Temp Employee Manageme	581.25
	Inv 211369	Managment Service Temp Employee 11/10/1	581.25
309081 Total:			1,668.19
OSSS3010 - Olympic Staffing Services Total:			4,992.94
OTCB8032 - OTC Brands, Inc.			
308986	11/11/2019		
	Inv 698448969-01	Game Prizes for Halloween Spooktacular 2	463.24
308986 Total:			463.24
OTCB8032 - OTC Brands, Inc. Total:			463.24
PAS8032 - Pasadena Ice Skating Center			
308987	11/11/2019		
	Inv Fall 2019	Class Instructor: Ice Skating(3 Classes	320.00
308987 Total:			320.00

PAS8032 - Pasadena Ice Skating Center Total:		320.00
PWP4465 - Pasadena Water & Power		
309082	11/25/2019	
Inv 80176-1	Water Purchase for the Pasadena Pressure	3,289.36
309082 Total:		3,289.36
PWP4465 - Pasadena Water & Power Total:		3,289.36
PAY7788 - Payke Gymnastics		
308988	11/11/2019	
Inv Fall 2019	Class Instructor: Gymanstics (2 Classes)	720.00
308988 Total:		720.00
PAY7788 - Payke Gymnastics Total:		720.00
PATC3011 - PayTech		
308951	10/31/2019	
Inv SIN019437	Contract for Implementation Svcs. for AD	3,060.00
Inv SIN019632	Contract for Implementation Svcs. for AD	3,000.00
Inv SIN019754	Contract for Implementation Svcs. for AD	4,350.00
Inv SIN019834	Contract for Implementation Svcs. for AD	5,257.50
308951 Total:		15,667.50
309083	11/25/2019	
Inv SIN020038	Contract for Implementation Svcs. for AD	4,350.00
Inv SIN020087	Contract for Implementation Svcs. for AD	4,200.00
Inv SIN020270	Contract for Implementation Svcs. for AD	3,750.00
309083 Total:		12,300.00
PATC3011 - PayTech Total:		27,967.50
PIT8031 - Pitney Bowes-Reserve Account		
309084	11/25/2019	
Inv 34133033	Reimb. Postage Meter	3,538.81
309084 Total:		3,538.81
PIT8031 - Pitney Bowes-Reserve Account Total:		3,538.81
TOPL8267 - Plasil, Tony		
309085	11/25/2019	
Inv Oct 2019	Class Instructor: Ballroom October 2019	160.00
Inv September 2019	Class Instructor: Ballroom September 201	140.00
309085 Total:		300.00

TOPL8267 - Plasil, Tony Total:			300.00
PODV8267 - Podvoll, Candace			
309086	11/25/2019		
	Inv October 2019	Class Instructor Meditation October 2019	116.80
309086 Total:			116.80
PODV8267 - Podvoll, Candace Total:			116.80
ANPO5011 - Porraz, Anthony			
308989	11/11/2019		
	Inv 09.10.2019	Reimb. Paramedic Fees	200.00
308989 Total:			200.00
ANPO5011 - Porraz, Anthony Total:			200.00
POSU8132 - Prudential Overall Supply			
308990	11/11/2019		
	Inv 52224857	Uniform Cleaning Service	59.92
	Inv 52231512	Uniform Cleaning Service	59.92
	Inv 52276376	Uniform Cleaning Service	67.73
	Inv 52276379	Uniform Cleaning Service	73.70
	Inv 52278607	Uniform Cleaning Service	67.73
	Inv 52280814	Uniform Cleaning Service	67.35
	Inv 52280817	Uniform Cleaning Service	73.70
	Inv 52283044	Uniform Cleaning Service	73.70
	Inv 52285251	Uniform Cleaning Service	67.35
	Inv 52285254	Uniform Cleaning Service	73.70
	Inv 52287479	Uniform Cleaning Service	73.70
	Inv 52289696	Uniform Cleaning Service	67.73
	Inv 52289699	Uniform Cleaning Service	73.70
	Inv 52291924	Uniform Cleaning Service	67.73
	Inv 52291927	Uniform Cleaning Service	73.70
	Inv 52294157	Uniform Cleaning Service	73.70
	Inv 52296391	Uniform Cleaning Service	67.73
	Inv 52296394	Uniform Cleaning Service	73.70
	Inv 52298615	Uniform Cleaning Service	67.73
	Inv 52298618	Uniform Cleaning Service	73.70
308990 Total:			1,397.92
309037	11/14/2019		
	Inv 52224861	Scraper Mats for Service Yard	19.35
	Inv 52224862	Scraper Mats for Garfield	12.47
	Inv 52231516	Scraper Mats for Garfield	12.47
	Inv 52287476	Uniform Cleaning Service	67.73
309037 Total:			112.02

POSU8132 - Prudential Overall Supply Total:			1,509.94
PUWA8020 - Pure Water			
309038	11/14/2019		
	Inv 201916616	Fire Department Office Supplies	87.39
309038 Total:			87.39
PUWA8020 - Pure Water Total:			87.39
QLET8032 - Quality Entertainment			
308991	11/11/2019		
	Inv 10.29.19	Breakfast w/ Santa Claus Event Entertain	210.00
308991 Total:			210.00
QLET8032 - Quality Entertainment Total:			210.00
RED8995 - Red Wing Shoe Store			
308992	11/11/2019		
	Inv 824-1-44306	Street Department Footware	197.09
	Inv 989-1-16482	Building Maint. Department Footware	188.50
	Inv 989-1-17201	Sewer Department Footware	233.18
	Inv 989-1-18474	Building Maint. Department Footware	250.00
	Inv 989-1-19039	Street Department Footware	208.34
308992 Total:			1,077.11
RED8995 - Red Wing Shoe Store Total:			1,077.11
RlPU8540 - Roadline Products Inc. USA			
309039	11/14/2019		
	Inv 15283	Materials for Street StripingCitwide Cr	6,712.35
309039 Total:			6,712.35
RlPU8540 - Roadline Products Inc. USA Total:			6,712.35
RARO6710 - Rodriguez, Rafael			
309040	11/14/2019		
	Inv 08.24.19	PW Mileage Reimb.	16.24
	Inv 08.25.19	PW Mileage Reimb.	16.24
309040 Total:			32.48
RARO6710 - Rodriguez, Rafael Total:			32.48
RGLY8264 - Ronald Reagan Library			
309087	11/25/2019		
	Inv 20248	Senior Center Excursion December 5th 201	921.90

Check Number	Check Date		Amount
309087 Total:			921.90
RGLY8264 - Ronald Reagan Library Total:			921.90
BENR8021 - Rushing, Ben			
309088	11/25/2019		
	Inv 11.08.19	Entertainment for Veterans Program Novem	150.00
309088 Total:			150.00
BENR8021 - Rushing, Ben Total:			150.00
RBBC4010 - Russ Bassett Corp.			
309041	11/14/2019		
	Inv 87865	Cleaning & Sanitization of Dispatch Furn	1,350.00
309041 Total:			1,350.00
RBBC4010 - Russ Bassett Corp. Total:			1,350.00
SOU5230 - S.P.Firefighters L-3657			
308952	10/31/2019		
	Inv P/R/E 10/27/19	Union Association Dues 10/19	3,343.60
308952 Total:			3,343.60
309042	11/14/2019		
	Inv P/R/E 11/05/19	Union Assn. Dues 11/19	3,258.60
309042 Total:			3,258.60
309089	11/25/2019		
	Inv 11.20.19	Retro Fire Rec Fees September2019	180.00
309089 Total:			180.00
SOU5230 - S.P.Firefighters L-3657 Total:			6,782.20
SOU5435 - S.P.P. O. A.			
308953	10/31/2019		
	Inv P/R/E 10/27/19	Dues 10/19	4,443.86
308953 Total:			4,443.86
309043	11/14/2019		
	Inv P/R/E 11/05/19	Ins. 11/19	4,443.86
309043 Total:			4,443.86
SOU5435 - S.P.P. O. A. Total:			8,887.72

Check Number	Check Date		Amount
SOU5451 - S.P.Public Srvc Empl. Ass'n			
308954	10/31/2019		
	Inv P/R/E 10/27/19 Assn. Dues 10/19		1,320.00
308954 Total:			1,320.00
309044	11/14/2019		
	Inv P/R/E 11/05/19 Assn. Dues 11/19		1,320.00
309044 Total:			1,320.00
SOU5451 - S.P.Public Srvc Empl. Ass'n Total:			2,640.00
SGEN6416 - Sage Environmental Group LLC			
308993	11/11/2019		
	Inv 839 Supervised Goat Grazing for 10 Acres of		24,700.00
308993 Total:			24,700.00
SGEN6416 - Sage Environmental Group LLC Total:			24,700.00
SAN8032 - San Pascual Stables			
308994	11/11/2019		
	Inv Fall 2019 Class Instructor: Payment forHorsemansh		972.00
308994 Total:			972.00
SAN8032 - San Pascual Stables Total:			972.00
SCF1400 - SC Fuels			
308995	11/11/2019		
	Inv 1537501-IN General Fire Fuel		2,380.79
308995 Total:			2,380.79
SCF1400 - SC Fuels Total:			2,380.79
LISC4610 - Schoenbach, Ilana A.			
309045	11/14/2019		
	Inv 244123602 Citation Adminstration Hearing Results R		50.00
309045 Total:			50.00
LISC4610 - Schoenbach, Ilana A. Total:			50.00
SHCT4010 - Shirt City Sports			
308996	11/11/2019		
	Inv 19316 Uniform Shirt for PD Dept.		54.75
308996 Total:			54.75

Check Number	Check Date		Amount
309090	11/25/2019		
	Inv 19328	Uniform Shirts for New PD Assistant	82.13
309090 Total:			82.13
SHCT4010 - Shirt City Sports Total:			136.88
SHO6666 - Shono, Jean			
309091	11/25/2019		
	Inv October 2019	Class Instructor Crochet Knitting Oct 20	40.00
	Inv Sept2019	Class Instructor Crochet Knitting Septem	32.00
309091 Total:			72.00
SHO6666 - Shono, Jean Total:			72.00
SOU6666 - So. CA Edison Co.			
309046	11/14/2019		
	Inv 3-000-5950-21	9/19/19-10-21-19	39.88
	Inv 3-000-5950-22	8/23/19-9-24-19	77.04
	Inv 3-000-7125-63	8/23/19-9-24-19	10.27
	Inv 3-000-7125-66	8/23/19-9-24-19	21.55
	Inv 3-000-7152-57	8/27/19-9-26-19	9.90
	Inv 3-000-8455-69	8/26/19-9-25-19	29.82
	Inv 3-000-9969-52	9/19/19-10-21-19	11.26
	Inv 3-001-1810-93	8/28/19-9-27-19	31.00
	Inv 3-001-1810-94	8/23/19-9-24-19	20.67
	Inv 3-001-1810-98	9/17/19-10-17-19	45,687.62
	Inv 3-001-1811-29	8/26/19-9-25-19	4,924.96
	Inv 3-001-1811-44	9/19/19-10-21-19	122.21
	Inv 3-001-1811-45	9/19/19-10-21-19	85.75
	Inv 3-001-1811-48	8/22/19-9-23-19	30.25
	Inv 3-001-1811-56	8/22/19-9-23-19	41.44
	Inv 3-001-1811-58	8/28/19-9-27-19	29.24
	Inv 3-001-1811-59	8/22/19-9-23-19	29.69
	Inv 3-001-1811-63	8/22/19-9-23-19	10.67
	Inv 3-001-1811-67	8/22/19-9-23-19	29.46
	Inv 3-001-1811-68	8/22/19-9-23-19	70.16
	Inv 3-001-1811-69	9/01/19-10-01-19	21.66
	Inv 3-001-1811-75	8/22/19-9-23-19	52.43
	Inv 3-001-1811-76	8/22/19-9-23-19	35.93
	Inv 3-001-1811-77	8/22/19-9-23-19	28.07
	Inv 3-001-1811-79	8/22/19-9-23-19	27.91
	Inv 3-001-1811-80	8/22/19-9-23-19	27.29
	Inv 3-001-1811-86	8/22/19-9-23-19	9.63
	Inv 3-001-1811-87	8/22/19-9-23-19	15.56
	Inv 3-001-1811-89	9/01/19-10-01-19	29.24
	Inv 3-001-1811-90	8/29/19-9-30-19	26.90
	Inv 3-001-1811-91	8/29/19-9-30-19	47.67
	Inv 3-001-1811-92	8/29/19-9-30-19	13.51
	Inv 3-001-1811-93	8/26/19-9-25-19	32.46
	Inv 3-001-1811-95	8/26/19-9-25-19	10.74
	Inv 3-001-1811-98	8/26/19-9-25-19	12.15

Check Number	Check Date	Amount
Inv 3-001-1812-06	8/26/19-9-25-19	20.04
Inv 3-001-1812-07	8/26/19-9-25-19	13.28
Inv 3-001-1812-08	8/26/19-9-25-19	41.93
Inv 3-001-1812-09	9/01/19-10-01-19	265.47
Inv 3-001-1812-10	8/26/19-9-25-19	37.05
Inv 3-001-1812-11	8/26/19-9-25-19	22.20
Inv 3-001-1812-12	8/26/19-9-25-19	12.94
Inv 3-001-1812-25	8/26/19-9-25-19	10.05
Inv 3-001-1812-26	8/26/19-9-25-19	821.33
Inv 3-001-1812-27	8/26/19-9-25-19	31.93
Inv 3-001-1812-31	8/28/19-9-27-19	23.36
Inv 3-001-1812-32	9/01/19-10-01-19	12.83
Inv 3-001-1812-35	8/28/19-9-27-19	13.35
Inv 3-001-1812-36	8/28/19-9-27-19	33.79
Inv 3-001-1812-38	8/28/19-9-27-19	10.57
Inv 3-001-1812-39	8/28/19-9-27-19	33.98
Inv 3-001-9413-97	8/28/19-9-27-19	1,947.25
Inv 3-002-4372-43	8/28/19-9-27-19	38.96
Inv 3-002-4472-77	09/23/19-10/23/19	1,500.57
Inv 3-002-4472-78	09/23/19-10/23/19	596.53
Inv 3-002-4473-12	8/28/19-9-27-19	9.63
Inv 3-003-7341-83	9/01/19-10-01-19	10.80
Inv 3-004-3214-58	8/28/19-9-27-19	19.01
Inv 3-004-4562-56	8/28/19-9-27-19	34.76
Inv 3-011-4089-57	09/23/19-10/23/19	33.40
Inv 3-016-0678-82	8/28/19-9-27-19	47.96
Inv 3-022-6051-15	8/28/19-9-27-19	45.02
Inv 3-022-6897-57	8/28/19-9-27-19	11.54
Inv 3-022-6897-72	09/23/19-10/23/19	9.97
Inv 3-022-6897-89	8/28/19-9-27-19	10.85
Inv 3-022-6897-99	8/28/19-9-27-19	10.96
Inv 3-022-6898-05	8/28/19-9-27-19	10.50
Inv 3-022-6898-17	8/28/19-9-27-19	10.74
Inv 3-023-6580-86	09/23/19-10/23/19	12.49
Inv 3-023-7462-29	09/23/19-10/23/19	74.35
Inv 3-023-7844-31	09/23/19-10/23/19	10.26
Inv 3-023-8283-79	09/23/19-10/23/19	12.53
Inv 3-026-3223-65	09/23/19-10/23/19	12.86
Inv 3-028-7013-82	09/23/19-10/23/19	29.05
Inv 3-028-7594-32	09/23/19-10/23/19	1,038.36
Inv 3-029-2458-05	09/23/19-10/23/19	31.00
Inv 3-032-0513-93	09/23/19-10/23/19	27.68
Inv 3-032-2521-62	09/23/19-10/23/19	18.11
Inv 3-032-4192-98	09/23/19-10/23/19	17.03
Inv 3-033-3452-62	09/23/19-10/23/19	469.95
Inv 3-035-3494-19	09/23/19-10/23/19	32.03
Inv 3-035-6502-21	09/23/19-10/23/19	471.67
Inv 3-037-6075-39	09/23/19-10/23/19	26.18
Inv 3-045-8045-41	09/23/19-10/23/19	10.35
Inv 3-046-7147-27	8/28/19-9-27-19	2,552.46
Inv 3-048-3503-18	9/01/19-10-01-19	0.44
Inv 3-048-3503-31	9/01/19-10-01-19	15.41
Inv 3-048-3504-12	9/01/19-10-01-19	0.68
Inv 3-048-3504-73	9/01/19-10-01-19	14.28
Inv 3-048-3504-98	09/23/19-10/23/19	1,115.86

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Inv 3-048-3505-86	9/01/19-10-01-19	11.06
Inv 3-048-3506-21	9/01/19-10-01-19	6.65
Inv 3-048-3506-72	9/01/19-10-01-19	13.17
Inv 3-048-3507-28	9/01/19-10-01-19	11.72
Inv 3-048-3508-41	09/23/19-10/23/19	19.14
Inv 3-048-3508-62	09/23/19-10/23/19	0.70
Inv 3-048-3508-76	09/23/19-10/23/19	572.37
Inv 3-048-3509-87	09/23/19-10/23/19	4.82
Inv 3-048-3512-00	09/23/19-10/23/19	358.66
Inv 3-048-3515-02	9/01/19-10-01-19	0.33
Inv 3-048-3515-19	9/01/19-10-01-19	28.32
Inv 3-048-3515-96	9/01/19-10-01-19	12.20
Inv 3-048-3518-27	09/23/19-10/23/19	1.96
Inv 3-048-3520-99	9/01/19-10-01-19	80.87
Inv 3-048-3524-22	9/01/19-10-01-19	23.26
Inv 3-048-3528-66	9/01/19-10-01-19	17.79
Inv 3-048-3529-42	9/01/19-10-01-19	35.81
Inv 3-048-3530-52	9/01/19-10-01-19	0.44
Inv 3-048-3534-21	09/23/19-10/23/19	17.73
Inv 3-048-3587-38	09/23/19-10/23/19	3.23
Inv 3-048-3587-48	9/01/19-10-01-19	8.18
Inv 3-048-3587-62	9/01/19-10-01-19	1.46
Inv 3-048-3593-95	9/01/19-10-01-19	16.62
Inv 3-048-3593-98	9/01/19-10-01-19	15.35
Inv 3-048-3594-16	09/23/19-10/23/19	8.31
Inv 3-048-3594-36	9/01/19-10-01-19	4.02
Inv 3-048-3599-01	9/01/19-10-01-19	5,975.83
Inv 3-048-3599-58	09/23/19-10/23/19	20.96
Inv 3-048-3599-97	9/01/19-10-01-19	35.75
Inv 3-048-3600-65	9/01/19-10-01-19	14.43
Inv 3-048-3601-53	9/01/19-10-01-19	2,353.58
Inv 3-048-3608-21	9/01/19-10-01-19	2,125.46
Inv 3-048-3659-74	9/01/19-10-01-19	762.65
Inv 3-048-3662-71	9/01/19-10-01-19	16.15
Inv 3-048-3664-38	9/01/19-10-01-19	0.52
Inv 3-048-3670-65	9/01/19-10-01-19	0.39
Inv 3-048-3675-98	09/23/19-10/23/19	15.86
Inv 3-048-3735-77	9/01/19-10-01-19	21.75
Inv 3-048-3736-11	9/01/19-10-01-19	30.83
Inv 3-048-3750-12	9/01/19-10-01-19	1.34
Inv 3-048-3807-64	9/01/19-10-01-19	17.20
Inv 3-048-3810-70	9/01/19-10-01-19	0.70
Inv 3-048-3819-71	9/01/19-10-01-19	11.42
Inv 3-048-3823-92	9/01/19-10-01-19	26.27
Inv 3-048-4948-55	09/23/19-10/23/19	467.92
Inv 3-048-4954-40	9/01/19-10-01-19	146.83
Inv 3-048-4960-02	9/01/19-10-01-19	33.58
Inv 3-048-4960-34	9/01/19-10-01-19	63.17
Inv 3-048-4961-25	9/01/19-10-01-19	3.57
Inv 3-048-5122-93	09/23/19-10/23/19	0.07
Inv 3-048-5123-18	09/23/19-10/23/19	17.49
Inv 3-048-5123-44	09/23/19-10/23/19	9.77
Inv 3-048-5125-68	9/01/19-10-01-19	62.49
Inv 3-048-5125-73	9/01/19-10-01-19	23.63
Inv 3-048-5126-22	09/23/19-10/23/19	0.39

Check Number	Check Date		Amount
Inv 3-048-5127-24	9/01/19-10-01-19		13.68
Inv 3-048-5129-43	9/01/19-10-01-19		1.59
Inv 3-048-5129-59	9/01/19-10-01-19		13.48
Inv 3-048-5131-46	9/01/19-10-01-19		0.88
Inv 3-048-5131-47	9/01/19-10-01-19		12.31
Inv 3-048-5132-96	09/23/19-10/23/19		15.49
Inv 3-048-5135-05	9/01/19-10-01-19		32.18
Inv 3-048-5135-50	09/23/19-10/23/19		307.78
Inv 3-048-5135-90	09/23/19-10/23/19		78.90
Inv 3-048-5136-08	9/01/19-10-01-19		18.74
Inv 3-048-5142-29	9/01/19-10-01-19		14.07
Inv 3-048-7780-74	9/01/19-10-01-19		1.60
Inv 3-048-7781-02	9/01/19-10-01-19		6.75
Inv 3-048-7781-59	9/01/19-10-01-19		56.83
Inv 3-048-7782-47	9/01/19-10-01-19		10.02
Inv 3-048-7782-87	9/01/19-10-01-19		1.60
Inv 3-048-7783-35	9/01/19-10-01-19		3.20
Inv 3-048-7786-19	9/01/19-10-01-19		6.75
309046 Total:			77,579.59
309092	11/25/2019		
Inv 3-000-5677-90	1/16/19-10/17/19		2,789.26
Inv 3-008-8091-11	10/01/19-11/01/19		2,518.79
Inv 3-008-8091-12	10/01/19-11/01/19		547.76
Inv 3-008-8091-13	10/01/19-11/01/19		7,384.83
Inv 3-008-8091-14	10/01/19-11/01/19		10.80
Inv 3-008-8091-16	10/03/19-11/04/19		73.72
Inv 3-008-8091-17	10/03/19-11/04/19		30.83
Inv 3-008-8091-18	10/03/19-11/04/19		28.34
Inv 3-008-8091-19	10/03/19-11/04/19		21.86
Inv 3-008-8091-20	10/03/19-11/04/19		36.80
Inv 3-008-8091-21	10/03/19-11/04/19		58.88
Inv 3-008-8091-22	10/03/19-11/04/19		23.79
Inv 3-008-8091-23	10/03/19-11/04/19		41.01
Inv 3-008-8091-24	10/03/19-11/04/19		36.41
Inv 3-008-8436-55	10/03/19-11/04/19		55.65
Inv 3-022-6898-28	09/27/19-10/29/19		10.68
Inv 3-025-4910-19	10/03/19-11/04/19		61.16
Inv 3-026-6343-40	10/03/19-11/04/19		8.88
Inv 3-045-0630-89	10/01/19-11/01/19		13.61
Inv 3-048-3733-54	09/27/19-10/29/19		0.34
Inv 3-048-4151-49	09/04/19-10/03/19		21.07
Inv 3-048-4154-08	09/04/19-10/03/19		29.15
Inv 3-048-4157-19	09/04/19-10/03/19		47.64
Inv 3-048-4158-60	09/04/19-10/03/19		53.10
Inv 3-048-4159-93	09/04/19-10/03/19		50.06
Inv 3-048-4160-78	09/04/19-10/03/19		2.26
Inv 3-048-4160-91	09/04/19-10/03/19		63.96
Inv 3-048-4164-59	09/04/19-10/03/19		16.60
Inv 3-048-4164-78	09/04/19-10/03/19		23.43
Inv 3-048-4164-93	09/04/19-10/03/19		14.63
Inv 3-048-4168-72	09/04/19-10/03/19		28.56
Inv 3-048-4173-52	09/04/19-10/03/19		33.13
Inv 3-048-7781-73	09/04/19-10/03/19		1,679.49

Check Number	Check Date		Amount
Inv 3-048-7784-31	09/04/19-10/03/19		389.40
Inv 3-048-7785-04	09/04/19-10/03/19		1.60
Inv 3-048-7785-92	09/04/19-10/03/19		777.22
Inv 3-048-7970-18	09/04/19-10/03/19		3.38
309092 Total:			16,988.08
SOU6666 - So. CA Edison Co. Total:			94,567.67
TAHZ8267 - Sound Appeal			
308997	11/11/2019		
Inv Fall 2019	Class Instructor: Piano Class(1 Class F		1,294.80
308997 Total:			1,294.80
TAHZ8267 - Sound Appeal Total:			1,294.80
CEAP7000 - South Pasadena Part Time Employees Assn.			
308955	10/31/2019		
Inv P/R/E 10/27/19	Assn. Dues 10/19		485.86
308955 Total:			485.86
309047	11/14/2019		
Inv P/R/E 11/5/19	Assn. Dus 11/19		504.00
309047 Total:			504.00
CEAP7000 - South Pasadena Part Time Employees Assn. Total:			989.86
SPRE7011 - South Pasadena Review			
308998	11/11/2019		
Inv J66752	Notice (Ordinance # 2333) So Pas Review		232.50
308998 Total:			232.50
SPRE7011 - South Pasadena Review Total:			232.50
SGMC2013 - St. George's Medical Clinic			
308999	11/11/2019		
Inv 123067.0	Medical Exam Acct # 123067.0		110.00
Inv 123282.0	Medical Exam Acct # 123282.0		110.00
Inv 123342.0	Medical Exam Acct # 123342.0		110.00
Inv 123382.0	Medical Exam Acct # 123382.0		110.00
Inv 123423.0	Medical Exam Acct # 123423.0		110.00
308999 Total:			550.00
309093	11/25/2019		
Inv 123067.0	Medical Exam Acct # 123067.0		110.00
Inv 123150.0	Medical Exam Acct # 89939.0		300.00
Inv 123282.0	Medical Exam Acct # 123282.0		110.00

Inv 123342.0	Medical Exam Acct # 123342.0	110.00
Inv 123363.0	Medical Exam Acct # 123363.0	175.00
Inv 123382.0	Medical Exam Acct # 123382.0	110.00
Inv 123423.0	Medical Exam Acct # 123423.0	110.00
Inv 123454.0	Medical Exam Acct # 123454.0	300.00
Inv 123511.0	Medical Exam Acct # 123511.0	75.00
Inv 123635.0	Medical Exam Acct # 123635.0	175.00
Inv 123723.0	Medical Exam Acct # 123723.0	175.00
Inv 123724.0	Medical Exam Acct # 1233724.0	110.00
Inv 123896.0	Medical Exam Acct # 123896.0	175.00
Inv 89939.0	Medical Exam Acct # 89939.0	125.00
309093 Total:		2,160.00
SGMC2013 - St. George's Medical Clinic Total:		2,710.00
STA5219 - Staples Business Advantage		
309048	11/14/2019	
Inv 3428332838	Finance Office Supplies	407.24
Inv 3428529204	Finance Office Supplies	93.39
Inv 3429119741	Recreation Office Supplies	48.84
309048 Total:		549.47
309094	11/25/2019	
Inv 3428778243	Managment Services Office Supplies	95.02
Inv 3430371615	Finance Office Supplies	137.94
309094 Total:		232.96
STA5219 - Staples Business Advantage Total:		782.43
STSM1020 - Studio Spectrum		
309049	11/14/2019	
Inv 191429	City Council / Planning Commission Meeti	2,355.00
309049 Total:		2,355.00
STSM1020 - Studio Spectrum Total:		2,355.00
SUN8556 - Sun Badge Company		
309095	11/25/2019	
Inv 394063	6 Lifesaving Awards	798.12
309095 Total:		798.12
SUN8556 - Sun Badge Company Total:		798.12
SWOR8032 - Swords Fencing Studio		
309000	11/11/2019	
Inv Fall 2019	Class Instructor: Fencing (3 Classes Fal	392.00

309000 Total:		392.00
SWOR8032 - Swords Fencing Studio Total:		392.00
SOGA6501 - The Gas Company		
309096	11/25/2019	
Inv 196-493-8529 1	Natural Gas Vehicle Fuel	673.71
309096 Total:		673.71
309097	11/25/2019	
Inv 072 519 1300 5	10/14/19-11/13/19	15.83
Inv 080 919 2900 3	10/14/19-11/13/19	210.87
Inv 080 919 3600 8	10/14/19-11/13/19	6.25
Inv 083 019 3600 4	10/14/19-11/13/19	42.81
Inv 135 519 3700 9	10/14/19-11/13/19	2.08
Inv 137 619 3700 5	10/14/19-11/13/19	70.07
Inv 148 220 0900 8	10/14/19-11/13/19	92.14
309097 Total:		440.05
SOU5030 - The Gas Company Total:		1,113.76
HAFR7000 - The Hartford		
308956	10/31/2019	
Inv 081464495850	Life Insurance 11/19 Inv# 081464495850	816.75
308956 Total:		816.75
HAFR7000 - The Hartford Total:		816.75
HODE8011 - The Home Depot Pro (Formerly Supply Works)		
309001	11/11/2019	
Inv 485917629	Janitorial Supplies for City Parks, PD,	1,508.13
Inv 485917637	Janitorial Supplies for City Parks, PD,	319.22
Inv 485917645	Janitorial Supplies for City Parks, PD,	561.40
Inv 490190964	Janitorial Supplies for City Parks, PD,	3,168.80
Inv 491436747	Janitorial Supplies for City Parks, PD,	592.75
309001 Total:		6,150.30
HODE8011 - The Home Depot Pro (Formerly Supply Works) Total:		6,150.30
TIM4011 - Time Warner Cable		
309002	11/11/2019	
Inv 008 0269985	Account # 8448 30 008 0269985(10/17-11/	176.26
309002 Total:		176.26
309098	11/25/2019	
Inv 008 0251967	Account # 8448 30 008 025196710/22-11/2	215.29

Inv 008 0345504	Account # 8448 30 008 034550410/21-11/2	360.00
Inv 008 0357905	Account # 8448 30 008 0357905	10.00
Inv 899 0029763	Account # 8448 20 899 0029763(09/16-11/	503.06
309098 Total:		1,088.35
TIM4011 - Time Warner Cable Total:		1,264.61
TOM4455 - Tom's Clothing & Uniforms Inc		
309050	11/14/2019	
Inv 1,765	PD Uniform & Accessories	1,067.49
Inv 1,767	PD Uniform & Accessories	261.68
Inv 1,768	PD Uniform & Accessories	486.14
Inv 1,769	PD Uniform & Accessories	248.50
Inv 1,781	PD Uniform & Accessories	536.48
Inv 1,791	PD Uniform & Accessories	292.26
Inv 1,802	PD Uniform & Accessories	472.95
309050 Total:		3,365.50
TOM4455 - Tom's Clothing & Uniforms Inc Total:		3,365.50
MYTJ2920 - Trejo, Mayra		
309003	11/11/2019	
Inv R99833/106591	Refund Deposit for WMB 9/28/19	500.00
309003 Total:		500.00
MYTJ2920 - Trejo, Mayra Total:		500.00
TRE9241 - Trench Shoring		
309051	11/14/2019	
Inv 1170605-0005	Rental of (2) Loft K-Rail Barriers 1853	180.00
309051 Total:		180.00
TRE9241 - Trench Shoring Total:		180.00
TSFT5011 - T-Shirt Factory Outlet		
309052	11/14/2019	
Inv 647453	Uniforms for Command Fire Staff	696.42
309052 Total:		696.42
TSFT5011 - T-Shirt Factory Outlet Total:		696.42
UMPQVONS - UMPQUA Bank		
309099	11/25/2019	
Inv 10.30.19	Brass Metal Tags Fire Department	33.59
309099 Total:		33.59

Check Number	Check Date		Amount
UMPQVONS - UMPQUA Bank Total:			33.59
UMPQ1226 - UMPQUA Bank			
309100	11/25/2019		
	Inv 10.01.19	Meeting w/ Mayor Pre Tem	41.53
	Inv 10.10.19	Arroyo One Meeting	211.65
	Inv 10.16.19	Planning Director Lunch	37.92
309100 Total:			291.10
309101	11/25/2019		
	Inv 10.03.19	Skillpath / NST Advanced Excel Training	169.00
309101 Total:			169.00
309102	11/25/2019		
	Inv 10.16.19	Community Services Training Expense	30.00
	Inv 10.30.19	Senior Center Halloween Treats	81.95
309102 Total:			111.95
309103	11/25/2019		
	Inv 10.03.19	Gasoline Motor Officers	23.40
	Inv 10.08.19	Gasoline Motor Officers	20.05
	Inv 10.10.19	Gasoline Motor Officers	21.29
	Inv 10.16.19	Gasoline Motor Officers	17.49
	Inv 10.18.19	Gasoline Motor Officers	16.53
	Inv 10.22.19	Gasoline Motor Officers	17.46
	Inv 10.30.19	Gasoline Motor Officers	18.91
309103 Total:			135.13
309104	11/25/2019		
	Inv 10.10.19	PD Chief Ortiz Uniforms & Hash Marks	707.47
309104 Total:			707.47
309105	11/25/2019		
	Inv 10.02.19	City Council Meeting Dinner Expense	234.34
	Inv 10.03.19	Toastmasters Meeting Meal Expense	326.69
	Inv 10.10.19	Toastmasters Meeting Meal Expense	181.43
	Inv 10.16.19	City Council Meeting Dinner Expense	132.91
	Inv 10.17.19	Toastmaster Meeting Meal Expense	77.33
	Inv 10.21.19	City Membership Toastmasters	1,995.00
	Inv 10.22.19	League of CA Cities Membership	25.00
	Inv 10.24.19	Toastmaster Meeting Meal Expense	47.72
	Inv 10.31.19	UMPQUA Charge	35.00
309105 Total:			3,055.42
309106	11/25/2019		
	Inv 10.27.19	Fire Strike Team Expense	121.40
	Inv 10.28.19	Fire Strike Team Expense	9.24

309106 Total:		130.64
309107	11/25/2019	
Inv 10.13.19	Fuel Expense Fire Dept.	50.00
309107 Total:		50.00
UMPQVTCF - UMPQUA Bank Total:		4,650.71
POR4707 - United Site Services, Inc.		
309004	11/11/2019	
Inv 114-9263736	Portable Toilet Services (Skate Park) 10	318.67
309004 Total:		318.67
POR4707 - United Site Services, Inc. Total:		318.67
VEBU3010 - Verizon Business Svcs, MCI Comm Service		
309053	11/14/2019	
Inv 7DE37177	Phone Conferencing Services	73.00
Inv SV193519	Phone Conferencing Services	14.03
309053 Total:		87.03
VEBU3010 - Verizon Business Svcs, MCI Comm Service Total:		87.03
VERW6711 - Verizon Wireless		
309108	11/25/2019	
Inv 9840946346	Account # 270619951-00002 (9/27-10/26/19	494.13
Inv 9840946347	Account # 270619951-00004 (9/27-10/26/19	502.94
309108 Total:		997.07
VERW6711 - Verizon Wireless Total:		997.07
VAPM8032 - Via Promotioanls		
309054	11/14/2019	
Inv 16622	2019 Bike Walk Reflective Slap Bracelets	436.92
309054 Total:		436.92
VAPM8032 - Via Promotioanls Total:		436.92
EJWR5011 - Ward, E.J.		
309109	11/25/2019	
Inv 0068168-IN	Install new EJ Ward Fuel Control	22,320.00
Inv 0068575-IN	Install new EJ Ward Fuel Control	8,799.52
309109 Total:		31,119.52

EJWR5011 - Ward, E.J. Total:			31,119.52
WES4152 - West Coast Arborists, Inc.			
309005	11/11/2019		
Inv 150074	Street Tree Maint. Professional Services		4,820.00
Inv 150759	Street Tree Maint. Removal / Replacement		8,726.00
Inv 152034	Street Tree Maint. Removal / Replacement		5,194.00
Inv 152931	Street Tree Maint. Professional Services		3,120.00
309005 Total:			21,860.00
WES4152 - West Coast Arborists, Inc. Total:			21,860.00
WES4011 - Western Graphix			
309006	11/11/2019		
Inv 52536	Payment for Employee ID Badges w/ Lamina		108.12
309006 Total:			108.12
WES4011 - Western Graphix Total:			108.12
PUFG8267 - Wong, Pauline			
309007	11/11/2019		
Inv July-August 19	Class Instructor: Line Dance July & Augu		163.80
309007 Total:			163.80
309110	11/25/2019		
Inv Oct 19	Class Instructor : Line DanceOct 19		220.00
Inv Sept & Oct 19	Class Instructor : Line DanceSept & Oct		187.20
309110 Total:			407.20
PUFG8267 - Wong, Pauline Total:			571.00
XRXF5010 - Xerox Financial Svcs			
309055	11/14/2019		
Inv 1817110	Copier Lease 10/10-11/09/19		1,893.11
309055 Total:			1,893.11
XRXF5010 - Xerox Financial Svcs Total:			1,893.11
Total:			610,363.19

ATTACHMENT 3
General City Warrant List

Accounts Payable

Check Detail

User: ealvarez
Printed: 11/26/2019 - 4:17PM

Check Number	Check Date		Amount
ALC4018 - Alco Target Company			
309111	12/04/2019		
	Inv 68210	Training Supplies for Police Dept.	110.60
309111 Total:			110.60
ALC4018 - Alco Target Company Total:			110.60
ALAL5011 - Alert-All Corp.			
309112	12/04/2019		
	Inv 219100339	Printing & Duplication - FireHats and B	476.33
309112 Total:			476.33
ALAL5011 - Alert-All Corp. Total:			476.33
ALH0179 - Alhambra Car Wash			
309113	12/04/2019		
	Inv 101-5	PW Car Wash Unit # 101 & 5	22.00
	Inv 26741	Police Dept. Car Washes September 2019	338.00
309113 Total:			360.00
ALH0179 - Alhambra Car Wash Total:			360.00
ALVL4010 - Alien Vault Inc.			
309114	12/04/2019		
	Inv 11-21106613	Police Department Cyber Security Monitor	8,964.00
309114 Total:			8,964.00
ALVL4010 - Alien Vault Inc. Total:			8,964.00
ACMT2920 - All City Management			
309115	12/04/2019		
	Inv 62949	Crossing Guard Services 08/11-08/24/19	5,884.25
	Inv 63164	Crossing Guard Services 08/25-09/07/19	7,258.41
	Inv 63540	Crossing Guard Services 09/08-09/21/19	7,745.83
	Inv 63822	Crossing Guard Services 09/22-10/05/19	7,867.27
	Inv 64179	Crossing Guard Services 10/16-10/19/19	7,293.65
309115 Total:			36,049.41

ACMT2920 - All City Management Total:			36,049.41
ALL0197 - All Star Fire Equipment, Inc.			
309116	12/04/2019		
	Inv 218228	Safety Clothing & Equipment Fire Dept.	16.43
	Inv 219267	Safetey Clothing / Equipment	265.90
309116 Total:			282.33
ALL0197 - All Star Fire Equipment, Inc. Total:			282.33
ANT0243 - Antrim's Security Co., Inc.			
309117	12/04/2019		
	Inv 55523	PD Key Duplication	72.77
309117 Total:			72.77
ANT0243 - Antrim's Security Co., Inc. Total:			72.77
ARCD6011 - ARC Document Solutions			
309118	12/04/2019		
	Inv 10108075	Printing & Duplication PW Projects	810.85
	Inv 10136794	Printing & Duplication PW Projects	867.31
	Inv 10273414	Printing & Duplication PW Projects	976.41
	Inv 10364447	Printing & Duplication PW Projects	1,061.29
	Inv 10394645	Printing & Duplication PW Projects	569.88
309118 Total:			4,285.74
ARCD6011 - ARC Document Solutions Total:			4,285.74
AMST8020 - Armstrong Lock & Safe			
309119	12/04/2019		
	Inv 6977	Replace lock on ALPR Trailer	125.00
	Inv 6996	Repare of PD Gun Safe Lock	135.00
309119 Total:			260.00
AMST8020 - Armstrong Lock & Safe Total:			260.00
BAK0369 - Baker & Taylor Books			
309120	12/04/2019		
	Inv 2034799951	Purchase of Books & Library Materials	409.89
	Inv 2034808018	Purchase of Books & Library Materials	833.80
	Inv 2034814181	Purchase of Books & Library Materials	1,056.13
	Inv 2034828374	Purchase of Books & Library Materials	488.73
	Inv 2034828942	Purchase of Books & Library Materials	663.26
	Inv 2034831852	Purchase of Books & Library Materials	398.25
	Inv 2034851466	Purchase of Books & Library Materials	653.90
	Inv 2034854082	Purchase of Books & Library Materials	384.42

Check Number	Check Date		Amount
Inv 2034858624	Purchase of Books & Library Materials		22.82
Inv 2034869833	Purchase of Books & Library Materials		535.95
Inv 2034883851	Purchase of Books & Library Materials		79.41
Inv 2034885181	Purchase of Books & Library Materials		556.19
Inv 2034893954	Purchase of Books & Library Materials		633.38
Inv 2034904581	Purchase of Books & Library Materials		261.03
Inv 2034905813	Purchase of Books & Library Materials		60.54
309120 Total:			7,037.70
BAK0369 - Baker & Taylor Books Total:			7,037.70
BAK0366 - Baker & Taylor Entertainment			
309121	12/04/2019		
Inv H4040450	Purchase of CD's and DVD's & Library Mat		32.81
Inv H40412380	Purchase of CD's and DVD's & Library Mat		139.52
Inv H40452090	Purchase of CD's and DVD's & Library Mat		32.85
Inv H40454110	Purchase of CD's and DVD's & Library Mat		18.06
Inv H40526010	Purchase of CD's and DVD's & Library Mat		18.87
Inv H40660390	Purchase of CD's and DVD's & Library Mat		12.15
Inv H40789270	Purchase of CD's and DVD's & Library Mat		310.21
Inv H40952810	Purchase of CD's and DVD's & Library Mat		142.83
Inv H40958170	Purchase of CD's and DVD's & Library Mat		41.02
Inv H40968880	Purchase of CD's and DVD's & Library Mat		20.50
Inv H40986100	Purchase of CD's and DVD's & Library Mat		24.63
Inv H41019370	Purchase of CD's and DVD's & Library Mat		25.44
309121 Total:			818.89
BAK0366 - Baker & Taylor Entertainment Total:			818.89
BMIE8264 - BMI			
309122	12/04/2019		
Inv 36193442	Musical License Renewal Fee -Local Gov'		358.00
309122 Total:			358.00
BMIE8264 - BMI Total:			358.00
BUR4018 - Burro Canyon Shooting Park			
309123	12/04/2019		
Inv 2027	PD Shooting Range Fees 10/11/19		40.00
309123 Total:			40.00
BUR4018 - Burro Canyon Shooting Park Total:			40.00
CAL5236 - CA Linen Services			
309124	12/04/2019		
Inv 1708364	Linen Cleaning Service		111.24
Inv 1711561	Linen Cleaning Service		80.09
Inv 1715626	Linen Cleaning Service		90.42

Check Number	Check Date		Amount
Inv 1719263	Linen Cleaning Service		95.91
309124 Total:			377.66
CAL5236 - CA Linen Services Total:			377.66
CAME2015 - CA Maintenance & Environmental			
309125	12/04/2019		
Inv 30488	Gas Pump Repair, Weekend Call		123.75
Inv 30502	Police / Fire Underground Storage Tank R		504.01
Inv 30623	Underground Fuel Storage TankInspection		125.00
Inv 30624	Underground Fuel Storage TankInspection		125.00
Inv 31039	Underground Fuel Storage TankInspection		125.00
Inv 31040	Underground Fuel Storage TankInspection		125.00
309125 Total:			1,127.76
CAME2015 - CA Maintenance & Environmental Total:			1,127.76
CPO4011 - CA Peace Officers Ass'n.			
309126	12/04/2019		
Inv 195600	Membership Renewal 2020 - Chief Ortiz		125.00
Inv 199120	Membership Renewal 2020 - Deputy Chief S		125.00
309126 Total:			250.00
CPO4011 - CA Peace Officers Ass'n. Total:			250.00
CAN0607 - Cantu Graphics			
309127	12/04/2019		
Inv 5644	Business Cards Public Works Dept.		196.77
Inv 5658	Dial-a-Ride Pre/Post Inspection Sheets (		142.35
Inv 5663	Business Cards for Community Services		65.59
309127 Total:			404.71
CAN0607 - Cantu Graphics Total:			404.71
CHE6010 - Chem Pro Laboratory, Inc.			
309128	12/04/2019		
Inv 655055	Civic Center Cooling Tower Water Treatme		164.00
309128 Total:			164.00
CHE6010 - Chem Pro Laboratory, Inc. Total:			164.00
CHPI4010 - Cherokee Productions, Inc.			
309129	12/04/2019		
Inv 12.18-12.19.19	PD Training for Cpl. Phillips, Ofcr. Won		885.00
309129 Total:			885.00

Check Number	Check Date		Amount
CHPI4010 - Cherokee Productions, Inc. Total:			885.00
CIAL1021 - City of Alhambra			
309130	12/04/2019		
Inv 110469	Use of City of Alhambra's Fire Training		4,634.88
309130 Total:			4,634.88
CIAL1021 - City of Alhambra Total:			4,634.88
PAS4012 - City of Pasadena			
309131	12/04/2019		
Inv 30008947	Shared Cost for Maint. of Traffic Signal		1,423.03
309131 Total:			1,423.03
PAS4012 - City of Pasadena Total:			1,423.03
CNRE4011 - CNOA Region V			
309132	12/04/2019		
Inv 01.09.2020	Training Class for Ofcr. Chanon January		60.00
309132 Total:			60.00
CNRE4011 - CNOA Region V Total:			60.00
CONN6711 - Conney Safety			
309133	12/04/2019		
Inv 05753422	9 Line Items of Vests & Gloves		36.14
309133 Total:			36.14
CONN6711 - Conney Safety Total:			36.14
COO0695 - Cook Fire Extinguisher Co			
309134	12/04/2019		
Inv 918274	Fire Extinguisher Maint at Public Works		452.00
Inv 918275	Fire Extinguisher Maint at Police Dept		373.00
Inv 918276	Fire Extinguisher Maint at City Hall, WM		191.43
Inv 918277	Fire Extinguisher Maint at Garfield Wate		248.00
Inv 918278	Fire Extinguisher Maint at Mission Merid		463.73
309134 Total:			1,728.16
COO0695 - Cook Fire Extinguisher Co Total:			1,728.16
CORE6011 - CoreLogic Information Solutions, Inc.			
309135	12/04/2019		
Inv 81990091	Public Information Database -Public Wor		300.00

Check Number	Check Date		Amount
309135 Total:			300.00
CORE6011 - CoreLogic Information Solutions, Inc. Total:			300.00
DSP0755 - D & S Printing			
309136	12/04/2019		
	Inv 8452	2 Self- Inking "Approved Payment" 2 " Re	245.28
	Inv 8487	5M Blue Report Card	492.75
	Inv 8494	2020 DR Folders for Police Department	2,775.83
	Inv 8533	PW Order of Colored EnvelopesQty # 1000	268.28
309136 Total:			3,782.14
DSP0755 - D & S Printing Total:			3,782.14
DOO0805 - Dooley Enterprises Inc			
309137	12/04/2019		
	Inv 57175	Police Dept. Ammunition Supplies	16,368.95
309137 Total:			16,368.95
DOO0805 - Dooley Enterprises Inc Total:			16,368.95
DDLP8010 - Dr. Detail Ph.D			
309138	12/04/2019		
	Inv 1980	Building Maintenance	450.00
309138 Total:			450.00
DDLP8010 - Dr. Detail Ph.D Total:			450.00
DUNN9257 - Dunn Edwards Paints			
309139	12/04/2019		
	Inv 2170064076	Paint for Finance Department	30.99
309139 Total:			30.99
DUNN9257 - Dunn Edwards Paints Total:			30.99
DGSI6010 - Duthie Generator Svc Inc.			
309140	12/04/2019		
	Inv A69875	Required Preventitive Maint on 250KW Gen	330.00
309140 Total:			330.00
DGSI6010 - Duthie Generator Svc Inc. Total:			330.00
EBS1007 - EBSCO Subscription Services			
309141	12/04/2019		

Check Number	Check Date		Amount
Inv 20155	Annual Renewal for Subscription of Perio		15.40
309141 Total:			15.40
EBS1007 - EBSCO Subscription Services Total:			15.40
EMPI5011 - Empire Cleaning Supply			
309142	12/04/2019		
Inv 1140879	Fire Dept. Cleaning Supplies		476.69
Inv 1144802	Department Cleaning Supplies		407.62
309142 Total:			884.31
EMPI5011 - Empire Cleaning Supply Total:			884.31
ENT5426 - Entenmann-Rovin			
309143	12/04/2019		
Inv 0147545-IN	Orde of 2 Lieutenant Uniform Badges		418.70
309143 Total:			418.70
ENT5426 - Entenmann-Rovin Total:			418.70
EURO6710 - Eurofins Eaton Analytical			
309144	12/04/2019		
Inv L0475769	Water Quality Laboratory Testing Service		127.00
Inv L0476310	Water Quality Laboratory Testing Service		350.00
Inv L0476511	Water Quality Laboratory Testing Service		300.00
Inv L0476567	Water Quality Laboratory Testing Service		10.00
Inv L0476750	Water Quality Laboratory Testing Service		127.00
Inv L0480506	Water Quality Laboratory Testing Service		300.00
309144 Total:			1,214.00
EURO6710 - Eurofins Eaton Analytical Total:			1,214.00
FED1109 - FedEx			
309145	12/04/2019		
Inv 6-723-81722	PD Shipping		48.67
Inv 6-736-14918	PD Shipping		47.07
Inv 6-744-56764	PD Shipping		26.55
Inv 6-765-27905	Water Dept. Postage		150.19
Inv 6-771-53869	PD Shipping		80.60
Inv 6-772-64634	Fire Dept. Postage		9.12
Inv 6-832-96455	PD Shipping		26.34
309145 Total:			388.54
FED1109 - FedEx Total:			388.54
PRFL2010 - Fellers, Paige			

Check Number	Check Date	Amount
309146	12/04/2019	
Inv 09 Public Library Card Design		250.00
309146 Total:		250.00
PRFL2010 - Fellers, Paige Total:		250.00
GAR5011 - Garvey Equipment Co		
309147	12/04/2019	
Inv 122346 PW Supplies "Landscape GlovesSmall & Me		496.49
309147 Total:		496.49
GAR5011 - Garvey Equipment Co Total:		496.49
THR5910 - George L.Throop Co.		
309148	12/04/2019	
Inv 2522 Safety Vests for Crew and Brooms for Emu		244.59
309148 Total:		244.59
THR5910 - George L.Throop Co. Total:		244.59
GLBI4011 - Global Industrial		
309149	12/04/2019	
Inv 115081954 Protex Large Front Loading Depository Sa		713.47
309149 Total:		713.47
GLBI4011 - Global Industrial Total:		713.47
GOHA6711 - Goudy Honda		
309150	12/04/2019	
Inv HOCS480742 Vehicle # 13 CNG Maint.		240.56
309150 Total:		240.56
GOHA6711 - Goudy Honda Total:		240.56
GRA2010 - Graham Company		
309151	12/04/2019	
Inv 36807 Maint. on Emergency Lighting for Library		1,260.00
309151 Total:		1,260.00
GRA2010 - Graham Company Total:		1,260.00
GRA6601 - Grainger		
309152	12/04/2019	
Inv 852471432 Toilet Sensor Replacement forPolice Dep		234.31

Check Number	Check Date		Amount
309152 Total:			234.31
GRA6601 - Grainger Total:			234.31
JNGU0000 - Guidos, Jennifer			
309153	12/04/2019		
	Inv R105853/107059	Refund Security Deposit for Eddie House	250.00
309153 Total:			250.00
JNGU0000 - Guidos, Jennifer Total:			250.00
HAC6711 - Hach Company			
309154	12/04/2019		
	Inv 11675098	Chlorine Analyzer Reaagent Solution	850.79
309154 Total:			850.79
HAC6711 - Hach Company Total:			850.79
HRAS6201 - Harris & Associates			
309155	12/04/2019		
	Inv 180048001	Street Lighting & Maint. District Annual	740.00
309155 Total:			740.00
HRAS6201 - Harris & Associates Total:			740.00
HRGR6711 - HR Grading & Paving			
309156	12/04/2019		
	Inv 1085	Material & Labor for repair of damaged b	5,040.00
309156 Total:			5,040.00
HRGR6711 - HR Grading & Paving Total:			5,040.00
INF4110 - Information Today, Inc.			
309157	12/04/2019		
	Inv 1700937-B1	Books, Videos, and Recordings	455.03
309157 Total:			455.03
INF4110 - Information Today, Inc. Total:			455.03
INCG6011 - Interwest Consulting Group			
309158	12/04/2019		
	Inv 53737	Professional Traffic Engineering Consult	1,400.00
	Inv 53823	On-Call Construction Management & Inpect	24,800.00
	Inv 53874	Planning & Building Consultant	13,000.00

309158 Total:			39,200.00
INCG6011 - Interwest Consulting Group Total:			39,200.00
JSAR4011 - Jack's Auto Repair			
309159	12/04/2019		
Inv 16,437	PD Annual Vehicle Maint. Unit# 1405		466.18
Inv 16,442	PD Repairs to Unit 1404		290.60
Inv 16,465	Transit Division 45 Day inspection of ve		55.00
Inv 16,468	Transit Division Maint. Brakeand Rotor		465.23
Inv 16,479	Transit Division Vehicle # 75Oil Change		70.95
Inv 16,487	Transit Division Maint. on Van # 75		55.00
Inv 16,498	Transit Division Maint. Oil Change Vehic		66.03
309159 Total:			1,468.99
JSAR4011 - Jack's Auto Repair Total:			1,468.99
JHMS8020 - JHM Supply			
309160	12/04/2019		
Inv 114896/1	Irrigation Supplies for Park Ball Field		227.75
Inv 114941/1	Irrigation Supplies for Arroyo Park Fiel		56.43
Inv 115116/1	Irrigation Supplies for Garfield Park FY		352.57
Inv 189633/1	New Irrigation Controller forGarfield P		416.96
Inv 195061/1	Irrigation Supplies for FY19-20		539.61
Inv K14667/1	King Wire Connection Black # 8		27.10
Inv K14788/1	Irrigation Controller for Garfield Park		176.42
309160 Total:			1,796.84
JHMS8020 - JHM Supply Total:			1,796.84
JHA307 - John L. Hunter Associates, Inc.			
309161	12/04/2019		
Inv SOPASNP0819	Professional Services for City's MS4 NPD		1,561.25
Inv SOPASNP0919	Professional Services for City's MS4 NPD		3,025.00
309161 Total:			4,586.25
JHA307 - John L. Hunter Associates, Inc. Total:			4,586.25
JOJN7000 - Johnson, Joseph			
309162	12/04/2019		
Inv 10.21-11.01.19	Training Class Reimb. for CplJohnson		489.32
309162 Total:			489.32
JOJN7000 - Johnson, Joseph Total:			489.32
KNPY8010 - Kanopy LLC			

Check Number	Check Date		Amount
309163	12/04/2019		
	Inv KDEP - 5329	Kanopy Streaming Service for Library	4,000.00
309163 Total:			4,000.00
KNPY8010 - Kanopy LLC Total:			4,000.00
KAR1897 - Karbelnig, Dr. Alan			
309164	12/04/2019		
	Inv 10.18.19	Fee for Post Pre-Employment Psychologica	400.00
309164 Total:			400.00
KAR1897 - Karbelnig, Dr. Alan Total:			400.00
KOAC6010 - KOA			
309165	12/04/2019		
	Inv JB83108-9	Traffic Engineering Svcs. (SSAR)	13,105.08
	Inv JB91076-4	Professioanl Engineering Design Servies	21,317.00
	Inv JB91076-5	Professioanl Engineering Design Servies	5,750.00
309165 Total:			40,172.08
KOAC6010 - KOA Total:			40,172.08
CUR7778 - L.N. Curtis & Sons			
309166	12/04/2019		
	Inv INV329363	Annual Flow Test Service - Water Departm	1,352.00
309166 Total:			1,352.00
CUR7778 - L.N. Curtis & Sons Total:			1,352.00
LDCR6410 - LandCare USA LLC			
309167	12/04/2019		
	Inv 241467	Median Strip Contract Services	25,581.89
	Inv 249382	Median Strip Contract Services	25,581.89
	Inv 257988	Prop A Park Maintenance Contract Service	25,581.89
309167 Total:			76,745.67
LDCR6410 - LandCare USA LLC Total:			76,745.67
LILE2920 - Lees, Linda			
309168	12/04/2019		
	Inv R105513/106596	Refund Security Deposit Senior Center	250.00
309168 Total:			250.00
LILE2920 - Lees, Linda Total:			250.00

Check Number	Check Date		Amount
LIFE822 - Life-Assist Inc.			
309169	12/04/2019		
	Inv 952891	FD Medical Supplies	2,146.59
309169 Total:			2,146.59
LIFE822 - Life-Assist Inc. Total:			2,146.59
LIN7766 - Linn & Associates			
309170	12/04/2019		
	Inv 18.07	Project 2121, 2123 & 2127 Hanscom Dr.	3,555.00
	Inv 18.08	Project 2121, 2123 & 2127 Hanscom Dr.	2,880.00
309170 Total:			6,435.00
LIN7766 - Linn & Associates Total:			6,435.00
MRCS2996 - Meridian Consultants LLC			
309171	12/04/2019		
	Inv 3596	Revisions to Draft EIR - Mission Bell Mi	7,975.00
309171 Total:			7,975.00
MRCS2996 - Meridian Consultants LLC Total:			7,975.00
MMV9126 - Mission Meridian Village POA			
309172	12/04/2019		
	Inv COM001	POA Dues Hospital	804.13
	Inv COM002	POA Due Parking	1,730.17
309172 Total:			2,534.30
MMV9126 - Mission Meridian Village POA Total:			2,534.30
MSSM6601 - Mission Smog			
309173	12/04/2019		
	Inv 2479	Annual Fleet Smog Check Truck# 209	45.00
	Inv 2496	Annual Fleet Smog Check for FY19	45.00
309173 Total:			90.00
MSSM6601 - Mission Smog Total:			90.00
MOR2900 - Morrow & Holman Plumbing Inc			
309174	12/04/2019		
	Inv P-09-3845	Garfield Park Drinking Fountain Repair	777.43
	Inv P-10-11566	WMB Sink Repair	156.25
	Inv P-9-11414	Camera in PD Department Base	350.00
309174 Total:			1,283.68

MOR2900 - Morrow & Holman Plumbing Inc Total:			1,283.68
NGSI6010 - Natural Gas Systems Inc.			
309175	12/04/2019		
	Inv 5950	November 2019 Natural Gas System Maint.	375.00
309175 Total:			375.00
NGSI6010 - Natural Gas Systems Inc. Total:			375.00
NLES8170 - Next Level Engineering Solutions LLC			
309176	12/04/2019		
	Inv 1002	On Call Transportation Planning, Program	5,220.00
	Inv 1004	On Call Transportation Planning, Program	5,220.00
309176 Total:			10,440.00
NLES8170 - Next Level Engineering Solutions LLC Total:			10,440.00
NV5R9266 - NV5			
309177	12/04/2019		
	Inv 140638	Construction Mgmt & Inspections Svcs - G	35,674.80
309177 Total:			35,674.80
NV5R9266 - NV5 Total:			35,674.80
OREI6711 - O' Reilly Automotive Inc.			
309178	12/04/2019		
	Inv 3213-137948	Vehicle Maint. Supplies	59.09
	Inv 3213-140142	Vehicle Maint. Supplies	233.02
	Inv 3213-144424	Wiper Blades for Water Production Div. T	39.38
309178 Total:			331.49
OREI6711 - O' Reilly Automotive Inc. Total:			331.49
OVDR8011 - OverDrive Inc.			
309179	12/04/2019		
	Inv 01148CO19192983	Purchase of Digital Books & Audiobooks f	783.97
	Inv 01148CO19192985	Purchase of Digital Books & Audiobooks f	341.93
	Inv 01148CO19192990	Purchase of Digital Books & Audiobooks f	646.41
	Inv 01148CO19192993	Purchase of Digital Books & Audiobooks f	416.49
	Inv 01148CO19204808	Purchase of Digital Books & Audiobooks f	2,570.24
309179 Total:			4,759.04
OVDR8011 - OverDrive Inc. Total:			4,759.04

Check Number	Check Date		Amount
PMHE6116 - Pape Material Handling Exchange			
309180	12/04/2019		
	Inv 6376518	Repair on Broken Horn & Battery	1,967.91
309180 Total:			1,967.91
PMHE6116 - Pape Material Handling Exchange Total:			1,967.91
PHS4011 - Pasadena Humane Society			
309181	12/04/2019		
	Inv NOV2019SoPas	Animal Control Svcs. - November	10,741.00
309181 Total:			10,741.00
PHS4011 - Pasadena Humane Society Total:			10,741.00
PWP4465 - Pasadena Water & Power			
309182	12/04/2019		
	Inv 80176-1	Water Purchase for 60 E. State St. 9/11-	2,580.40
309182 Total:			2,580.40
PWP4465 - Pasadena Water & Power Total:			2,580.40
PSSG4010 - Performance Star Smog			
309183	12/04/2019		
	Inv 015734	Annual Fleet Smog Check Truck# 330	60.00
	Inv 015737	Annual Fleet Smog Check Truck# 364	60.00
	Inv 015740	Annual Fleet Smog Check Truck# 363	60.00
309183 Total:			180.00
PSSG4010 - Performance Star Smog Total:			180.00
PBGF8031 - Pitney Bowes Global Fin. Svc LLC			
309184	12/04/2019		
	Inv 3103444690	Postage Meter Lease Invoice #3103444690	252.84
309184 Total:			252.84
PBGF8031 - Pitney Bowes Global Fin. Svc LLC Total:			252.84
PDI417 - Plumbers Depot Inc.			
309185	12/04/2019		
	Inv PD-41929	Camera Rental for 7 Months	3,000.39
309185 Total:			3,000.39
PDI417 - Plumbers Depot Inc. Total:			3,000.39

Check Number	Check Date		Amount
PRC3D401 - Precision 3d Targets, Inc.			
309186	12/04/2019		
	Inv 1061	10 Completed 3D Targets w/ 2 Stands	335.00
309186 Total:			335.00
PRC3D401 - Precision 3d Targets, Inc. Total:			335.00
PEDS6010 - Prime Electric Distributors			
309187	12/04/2019		
	Inv S1394490.001	LED Retrofit at Citywide Facilities	313.46
	Inv S1394499.001	PW Supplies LED Replacements	91.98
	Inv S1395783.001	PW Street Light Bulb Replacements	108.79
	Inv S1396379.001	LED Retrofit at Citywide Facilities	328.50
	Inv S1400370.001	Arroyo Park Restroom Exhaust Fan Replace	211.77
309187 Total:			1,054.50
PEDS6010 - Prime Electric Distributors Total:			1,054.50
POSU8132 - Prudential Overall Supply			
309188	12/04/2019		
	Inv 52283041	Unifrom Cleaning Service	67.73
	Inv 52300862	Uniform Cleaning Service	67.73
	Inv 52300865	Uniform Cleaning Service	73.70
	Inv 52303122	Uniform Cleaning Service	67.73
	Inv 52303123	PW Scraper Mats	12.47
	Inv 52303124	PW Scraper Mats	19.35
	Inv 52303125	Uniform Cleaning Service	73.51
309188 Total:			382.22
POSU8132 - Prudential Overall Supply Total:			382.22
PSOMAS - PSOMAS			
309189	12/04/2019		
	Inv 3SPA010100	General Plan So PasadenaUpdate	602.50
309189 Total:			602.50
PSOMAS - PSOMAS Total:			602.50
RHFI4010 - R.H.F. Inc.			
309190	12/04/2019		
	Inv 74695	Recertify Radar NHTSA/IACP	85.00
309190 Total:			85.00
RHFI4010 - R.H.F. Inc. Total:			85.00
RKIN4011 - Randy E. Kirby Investigations			

Check Number	Check Date		Amount
309191	12/04/2019		
	Inv 2019009	Fee for pre-employement background inves	2,835.00
309191 Total:			2,835.00
RKIN4011 - Randy E. Kirby Investigations Total:			2,835.00
RED8995 - Red Wing Shoe Store			
309192	12/04/2019		
	Inv 989-1-19866	Building Maint. Department Footware	218.27
309192 Total:			218.27
RED8995 - Red Wing Shoe Store Total:			218.27
REF6601 - Refrigeration Supplies Distrib			
309193	12/04/2019		
	Inv 1514158-00	AC System Air Filter Replacement	57.96
	Inv 1515152-00	Indoor Air Filters	62.55
309193 Total:			120.51
REF6601 - Refrigeration Supplies Distrib Total:			120.51
RHAL9158 - RHA Landscape Architects-Planners			
309194	12/04/2019		
	Inv 0919024	Design Development & Preperation of Docu	1,169.25
	Inv 0919025	Design Development & Preperation of Docu	44.00
309194 Total:			1,213.25
RHAL9158 - RHA Landscape Architects-Planners Total:			1,213.25
RKAC6010 - RKA Consulting Group			
309195	12/04/2019		
	Inv 29281	Alpha Ave & Camino Del Sol Improvement P	6,095.65
309195 Total:			6,095.65
RKAC6010 - RKA Consulting Group Total:			6,095.65
RlPU8540 - Roadline Products Inc. USA			
309196	12/04/2019		
	Inv 15274	Citywide Striping of Curbs, Stops, and C	5,607.60
309196 Total:			5,607.60
RlPU8540 - Roadline Products Inc. USA Total:			5,607.60
RUNSH671 - Runyon, Sherry			

Check Number	Check Date		Amount
309197	12/04/2019		
	Inv T1019-02	Residential High Efficiency Toilet Rebat	200.00
309197 Total:			200.00
RUNSH671 - Runyon, Sherry Total:			200.00
SGV5685 - S.G.V. Medical Center			
309198	12/04/2019		
	Inv 841448	Blood Alcohol Test 8/18/19	48.00
	Inv 841513	Blood Alcohol Withdrawl Test	48.00
	Inv 843132	Blood Alcohol Withdrawl Test	48.00
309198 Total:			144.00
SGV5685 - S.G.V. Medical Center Total:			144.00
SOU5250 - S.P.Review & The Quarterly Magazine			
309199	12/04/2019		
	Inv I66635	Advertisement - Bike Sheltersand Hitche	450.00
	Inv J66797	Legal Notice - City Hall Courtyard Proje	624.00
309199 Total:			1,074.00
SOU5250 - S.P.Review & The Quarterly Magazine Total:			1,074.00
SGB3223 - San Gabriel Basin Water Quality Authority			
309200	12/04/2019		
	Inv 0004504-IN	FY19-20 Assessment on Prescriptive Pumpi	21,406.20
309200 Total:			21,406.20
SGB3223 - San Gabriel Basin Water Quality Authority Total:			21,406.20
SAN4958 - San Marino Security System			
309201	12/04/2019		
	Inv R 10755	Garfield Reservoir: Water Distribution F	267.00
309201 Total:			267.00
SAN4958 - San Marino Security System Total:			267.00
SER6856 - Service Pro Pest Mgmt Company			
309202	12/04/2019		
	Inv 21159	Citywide Pest Control October2019	401.67
	Inv 21694	Citywide Pest Control October2019	401.67
309202 Total:			803.34
SER6856 - Service Pro Pest Mgmt Company Total:			803.34

Check Number	Check Date		Amount
SHO7777 - Showcases			
309203	12/04/2019		
	Inv 313747	Technical Services Supply	303.59
309203 Total:			303.59
SHO7777 - Showcases Total:			303.59
REP6115 - Siemens Mobility, Inc.			
309204	12/04/2019		
	Inv 5610184331	Traffic Signal Maint. September 2019	2,163.63
	Inv 5610189574	Replacement & Installation ofBattery Ba	1,275.16
	Inv 5620023213	Traffic Signal Call Outs - September 201	624.32
309204 Total:			4,063.11
REP6115 - Siemens Mobility, Inc. Total:			4,063.11
SIR8011 - SirsiDynix			
309205	12/04/2019		
	Inv INVCT104391	Library Informational Products June 1,20	33,825.99
309205 Total:			33,825.99
SIR8011 - SirsiDynix Total:			33,825.99
SPRE7011 - South Pasadena Review			
309206	12/04/2019		
	Inv J66786	Notice (1122 Milan Ave) So Pasadena Revi	157.50
	Inv J66787	Notice (CHC - 1105-1115 Mission St.) So	300.00
	Inv K66912	Notice (2045 Monterey Rd) So Pasadena Re	165.00
	Inv K66913	Notice (1611 Spruce St.) So Pasadena Rev	180.00
	Inv K66914	Notice (1212 Orange Grove) SoPasadena R	165.00
	Inv K66915	Notice (822 Flores de Oro) SoPasadena R	165.00
	Inv K66916	Notice (630 Mission St.) So Pasadena Rev	157.50
	Inv K66922	Notice (1123 Windsor - Cultural Heritage	165.00
309206 Total:			1,455.00
SPRE7011 - South Pasadena Review Total:			1,455.00
STA5219 - Staples Business Advantage			
309207	12/04/2019		
	Inv 3422097940	FD Office Supplies	9.30
	Inv 3422097941	FD Office Supplies	22.66
	Inv 3422097942	FD Office Supplies	50.47
	Inv 3423417686	FD Office Supplies	-50.47
	Inv 3426007239	PW Office Supplies	234.22
	Inv 3426296453	PW Office Supplies	45.43
	Inv 3426824245	Library Office Supplies	253.13
	Inv 3427364113	Library Office Supplies	55.92

Inv 3427617663	Library Office Supplies	27.13
Inv 3427617664	Library Office Supplies	40.83
Inv 3427617666	PW Office Supplies	189.15
Inv 3427701936	P&B Office Supplies	146.51
Inv 3427778185	Library Office Supplies	53.70
Inv 3428778245	Office Supplies P & B	263.16
Inv 3429119740	Office Supplies P & B	44.92
Inv 3429297094	Office Supplies P & B	-25.28
Inv 3429297096	Office Supplies P & B	-23.97
Inv 3429631355	Office Supplies P & B	240.74
Inv 3429774389	Library Office Supplies	143.86
Inv 3429774391	PW Office Supplies	179.66
Inv 3429774394	Office Supplies P & B	56.93
309207 Total:		1,958.00
STA5219 - Staples Business Advantage Total:		1,958.00

YVSN4894 - Sun, Yvonne

309208 12/04/2019

Inv R106121/107060	Refund Security Deposit for Youth House	250.00
309208 Total:		250.00
YVSN4894 - Sun, Yvonne Total:		250.00

SUVA8022 - Sunset Vans Inc.

309209 12/04/2019

Inv 17649	Wheelchair Maint. Repair & Inspection fo	150.00
Inv 17650	Wheelchair Maint. Repair & Inspection fo	90.00
309209 Total:		240.00
SUVA8022 - Sunset Vans Inc. Total:		240.00

SCRR4010 - Superior Court of CA, County of LA

309210 12/04/2019

Inv 740A	Revenue Distribtion September2019	14,095.00
309210 Total:		14,095.00
SCRR4010 - Superior Court of CA, County of LA Total:		14,095.00

BEMN6010 - The Bee Man

309211 12/04/2019

Inv 105796	2020 Maycrest - Treatment & Temporary Pl	295.00
309211 Total:		295.00
BEMN6010 - The Bee Man Total:		295.00

Check Number	Check Date		Amount
TOM4455 - Tom's Clothing & Uniforms Inc			
309212	12/04/2019		
	Inv 1,770	PD Clothing Accessories	249.66
	Inv 1,771	PD Clothing Accessories	249.66
309212 Total:			499.32
TOM4455 - Tom's Clothing & Uniforms Inc Total:			499.32
TAEV9224 - Total Access Elevator Inc.			
309213	12/04/2019		
	Inv 45143	Regular Elevator Monthly Maint.	976.75
	Inv 46202	Regular Elevator Monthly Maint.	976.75
309213 Total:			1,953.50
TAEV9224 - Total Access Elevator Inc. Total:			1,953.50
TRA5998 - Transtech Engineers Inc.			
309214	12/04/2019		
	Inv 20192158	Consulting for Month to MonthBuilding &	20,920.64
	Inv 20192159	Consulting for Month to MonthBuilding &	16,832.58
	Inv 20192511	Consulting for Month to MonthBuilding &	18,740.84
	Inv 20192512	Consulting for Month to MonthBuilding &	18,609.67
	Inv 20192513	Engineer 3rd Pty. Soils Review (420 El C	1,218.76
309214 Total:			76,322.49
TRA5998 - Transtech Engineers Inc. Total:			76,322.49
TRE9241 - Trench Shoring			
309215	12/04/2019		
	Inv 1170605-0001	Rental of (2) Loft K-Rail Barriers	512.50
	Inv 1170605-0007	1853 Hanscom Drive K Rail	180.00
	Inv 1170605-0008	1853 Hanscom Drive K Rail	180.00
309215 Total:			872.50
TRE9241 - Trench Shoring Total:			872.50
UCL6115 - UCLA Center for Prehospital Care			
309216	12/04/2019		
	Inv 2396	Paramedic Training November 2019	2,344.60
309216 Total:			2,344.60
UCL6115 - UCLA Center for Prehospital Care Total:			2,344.60
UND6710 - Underground Service Alert			
309217	12/04/2019		
	Inv 18dsbfe5393	Underground Service Alert Database Maint	101.07

Check Number	Check Date		Amount
Inv 920190696		Underground Service Alert Database Maint	153.55
309217 Total:			254.62
UND6710 - Underground Service Alert Total:			254.62
UGNI2920 - Ung, Nick			
309218	12/04/2019		
Inv R105329-106597		Refund Security Deposit for GP Youth Hou	250.00
309218 Total:			250.00
UGNI2920 - Ung, Nick Total:			250.00
UQMS8010 - Unique Mgmt Svcs Inc.			
309219	12/04/2019		
Inv 560792		Contract Services	214.80
309219 Total:			214.80
UQMS8010 - Unique Mgmt Svcs Inc. Total:			214.80
TRVL2920 - Villavicencio, Teresa			
309220	12/04/2019		
Inv R106391/106595		Refund Security Deposit Senior Center	250.00
309220 Total:			250.00
TRVL2920 - Villavicencio, Teresa Total:			250.00
EJWR5011 - Ward, E.J.			
309221	12/04/2019		
Inv 0068753-IN		Build Maint. Fuel Pump Control Terminal	13,333.55
Inv 0068757-IN		Install new EJ Ward Fuel Control	400.00
309221 Total:			13,733.55
EJWR5011 - Ward, E.J. Total:			13,733.55
WES4152 - West Coast Arborists, Inc.			
309222	12/04/2019		
Inv 153144		Street Tree Maint. Contract Services	7,680.00
309222 Total:			7,680.00
WES4152 - West Coast Arborists, Inc. Total:			7,680.00
WES4011 - Western Graphix			
309223	12/04/2019		
Inv 52530		Fire Department Supplies	193.57

Check Number	Check Date		Amount
309223 Total:			193.57
WES4011 - Western Graphix Total:			193.57
WIT6353 - Wittman Enterprises LLC			
309224	12/04/2019		
Inv 1910059	Paramedic Payments - October 2019		4,628.37
309224 Total:			4,628.37
WIT6353 - Wittman Enterprises LLC Total:			4,628.37
WON1113 - Wong, Maida			
309225	12/04/2019		
Inv 11.07.19	Mileage Reimb. (Library Conference) 10/2		37.66
309225 Total:			37.66
WON1113 - Wong, Maida Total:			37.66
YTI1023 - Y Tire Sales			
309226	12/04/2019		
Inv 0012187	Mount & Balance 1 Tire Unit #0134		208.69
309226 Total:			208.69
YTI1023 - Y Tire Sales Total:			208.69
ZOLL8021 - Zoll Medical Copr. GPO			
309227	12/04/2019		
Inv 2963751	Medical Supplies		198.52
309227 Total:			198.52
ZOLL8021 - Zoll Medical Copr. GPO Total:			198.52
Total:			574,965.89

ATTACHMENT 4
Prepaid & General Warrant Voids

Accounts Payable

Void Check Proof List

User: ealvarez
Printed: 11/06/2019 - 9:19AM

Account Number	Amount	Invoice No	Inv Date	Description	Reference	Task Label	Type	PONumber	Close PO?	Line Item
Vendor: RBBC4010	Russ Bassett Corp.									
Check No: 308388	Check Date: 09/18/2019									
	1,350.00	87865	07/12/2019	Cleaning & Sanitzation of Dispatch Ft					No	0
101-4010-4011-8110-000										
Check Total:	1,350.00									
Vendor Total:	1,350.00									
Report Total:	1,350.00									

Accounts Payable

Void Check Distribution List

User: ealvarez
Printed: 11/6/2019 - 9:35 AM

	DR Amount	CR Amount	Acct Number	Description	Vendor
Section 1:101General Fund					
	1,350.00	0.00	101-0000-0000-1000-000	Cash & Cash Equivalents	
	0.00	1,350.00	101-4010-4011-8110-000	Equipment Maintenance	RBBC4010
Total for Section 1:101	1,350.00	1,350.00			
Grand Total:	1,350.00	1,350.00			

Accounts Payable

Void Check Distribution List

User: ealvarez
Printed: 11/25/2019 - 1:53 PM

	DR Amount	CR Amount	Acct Number	Description	Vendor
Section 1:101General Fund					
	160.00	0.00	101-0000-0000-1000-000	Cash & Cash Equivalents	
	0.00	160.00	101-8030-8021-8267-000	Classes	TOPL8267
Total for Section 1:101	160.00	160.00			
Grand Total:	160.00	160.00			

Accounts Payable

Void Check Proof List

User: ealvarez
Printed: 11/25/2019 - 1:52PM

Account Number	Amount	Invoice No	Inv Date	Description	Reference	Task Label	Type	PONumber	Close PO?	Line Item
Vendor: TOPL8267	Tony Plasil									
Check No: 308887	Check Date:	11/06/2019								
	160.00	Oct 2019	10/31/2019	Instruct Ballroom Dance October 201					No	0
101-8030-8021-8267-000										
Check Total:	160.00									
Vendor Total:	160.00									
Report Total:	160.00									

Stop Payment Request - Confirmation

Stop Payments Submitted

Total submitted: 1

View Status Definitions

Account	Duration	Check Range	Issue Date
041533688.CITY OF SOUTH PASADENA OPERATING	6 Months	308887	

Disclosure Information

Important Disclosure: Stop payment requests submitted on the WebDirect Stop Payment Initiation screen apply ONLY to paper checks and not electronic payments. The exact check number and exact amount of the item written are required information. If any of the information you provide concerning the check is not provided or is incorrect (including your failure to give the exact amount of the item, correct to the penny), the stop payment will not be effective. This stop payment will not be effective if the Bank has already paid or committed to paying the check. If you have any questions, please refer to the WebDirect User Guide or contact Cash Management Customer Service at 800-400-2781 or your assigned representative.

City Council Agenda Report

ITEM NO. 14

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Karen Aceves, Acting Finance Director
Albert Trinh, Finance Manager

SUBJECT: **Adoption of a Resolution Determining and Establishing an Appropriations Limit for Fiscal Year 2018-19 in Accordance with Article XIII B of the California Constitution**

Recommendation Action
It is recommended that the City Council:

1. Adopt a resolution setting the City of South Pasadena's (City) FY 2018-19 Appropriations Limit.

Commission Review and Recommendation
This matter was not reviewed by a Commission.

Executive Summary
Voters Passed Gann Limit in 1979 to Constrain Government Spending. In the wake of Proposition 13 (1978)—the landmark initiative that limited local property taxes—voters passed another measure that limited the spending side of government operations. Proposition 4 (1979) amended the State Constitution to impose spending limits—technically, appropriations limits—on the state and most local governments. The limits are sometimes referred to as "Gann limits" in reference to one of the measure's coauthors, Paul Gann. The fundamental purpose of the limits was to keep inflation- and population-adjusted appropriations under the 1978-79 level. The measure required revenues in excess of the limit to be rebated to taxpayers.

Discussion/Analysis
The data used to calculate the City's Fiscal Year 2018-19 limit are the change in California per capita income, 3.69%, and Los Angeles County population growth, 0.55%. The changes in population per capita income were determined by the Census. These indices are used to maintain the 1978-79 level to reflect Capita Per Income (CPI) Adjustments required by the passage Proposition 4 (1979). The application of these growth factors to the City's FY 2018-19 Appropriations Limit produces the City's FY 2018-19 limit of $26,190,464.

For FY 2018-19, the appropriations subject to the limit are $3,379,625 below the legally mandated limit. At this time, it is recommended the City Council adopt the proposed resolution

setting the City's Appropriation Limit for FY 2018-19. The City will continue to closely monitor revenues during this fiscal year to determine if the actual revenues will exceed the Limit. Should the revenues from the proceeds of taxes exceed the legal Limit, alternatives for recalculations and/or a return of excess proceeds will need to be considered at that time.

The City's independent auditors perform a limited review of the calculation as part of their annual audit. Per the State Constitution, the independent auditors are only required to review the annual calculation of the limit itself (Attachment 2, Exhibit A, Section I - Appropriation Limit). The City is responsible for the allocation of proceeds of taxes versus non-proceeds of taxes subject to the Limit (Attachment 2, Exhibit B).

Background
The "Gann Initiative" (established by 1979's Proposition 4) restricts the amount of tax-generated monies government entities can spend in a given fiscal year. Incorporated into Article XIII B of the State Constitution, the Gann Appropriations Limit specifies that appropriations funded by taxes may be increased annually by the higher of the change in California per capita income or nonresidential assessed valuation due to new construction and the change in South Pasadena population or Los Angeles County population.

Fiscal Impact
None.

Legal Review
The City Attorney has reviewed this item.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachment:
1. Resolution Establishing an Appropriations Limit for FY 2018-19
2. Gann Appropriations Limit Calculation (Exhibits A, B, C, D)

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, DETERMINING AND ESTABLISHING AN APPROPRIATIONS LIMIT FOR FISCAL YEAR 2018-19 IN ACCORDANCE WITH ARTICLE XIII B OF THE CALIFORNIA CONSTITUTION AND GOVERNMENT CODE SECTION 7910

WHEREAS, Article XIII B was added to the Constitution of the State of California at the Special Statewide election held November 6, 1979 (commonly known as Proposition 4); and

WHEREAS, Government Code Section 7910 was added to Chapter 12.05 by Statute at the Regular Session of the California Legislature; and

WHEREAS, Proposition 111, which, among other things, provides new annual adjustment formulas for the Appropriations Limit, was approved by the voters in June, 1990; and

WHEREAS, The League of California Cities and the State of California Department of Finance have published population and per capita income growth indexes, as well as guidelines for the uniform application of Proposition 111; and

WHEREAS, Government Code Section 7910 requires the governing body of each local jurisdiction to adopt, by resolution, its Appropriation Limit; and

WHEREAS, said Appropriations Limit must be adhered to in preparing and adopting the City of South Pasadena's (City) annual Budget.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, DOES RESOLVE, DECLARE, DETERMINE AND ORDER AS FOLLOWS:

SECTION 1. In compliance with Article XIII B of the Constitution of the State of California, and Government Code Section 7910, the City hereby establishes the City's Appropriation Limit for the Fiscal Year (FY) 2018-19 to be $26,190,464.

SECTION 2. In the computation of such limits, the City selected population factors for Los Angeles County, rather than those for South Pasadena, for use in FY 2018-19.

SECTION 3. In regard to the cost-of-living factors used in the computation of the Appropriations Limit, the City used the change in California per capita income, rather than the change in assessed valuation due to new nonresidential construction.

SECTION 4. Said Appropriation Limit shall be adhered to in the City's FY 2018-19 Budget.

SECTION 5. The City Clerk of the City of South Pasadena shall certify to the passage and adoption of this resolution and its approval by the City Council and shall cause the same to be listed in the records of the City.

PASSED, APPROVED AND ADOPTED ON this 5th day of June, 2019.

Marina Khubesrian, Mayor

ATTEST:

Maria Ayala, City Clerk
(seal)

APPROVED AS TO FORM:

Teresa L. Highsmith, City Attorney

I HEREBY CERTIFY the foregoing resolution was duly adopted by the City Council of the City of South Pasadena, California, at a regular meeting held on the 4th day of December, 2019, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAINED:

Maria Ayala, City Clerk
(seal)

Exhibit A
South Pasadena
Appropriations (Gann) Limit Calculation
Fiscal Year 2018-19

I	**Appropriation Limit**		
	Prior Year, 2017-18 Adopted Limit		$25,120,116
	Adjustment Factors:		
	Change in California Per Capita Income (Note 1)	1.0369	
	Change in L.A. County Population (Note 2)	1.0055	1.0426
	Current Year, 2018-19 Appropriation Limit		$26,190,464
II	**Appropriations Subject to Limit**		
	Projected 2018-19 Revenues, All City Funds		$43,819,136
	Less: Non-Proceeds of Taxes (See Exhibit B)		(20,640,286)
	Less: Exclusions (See Exhibit C)		(368,011)
	Total City Appropriations Subject to Limit		$22,810,839
III	**Amount Over/(Under) Limit (I - II)**		($3,379,625)
IV	**Total City Appropriations as a % of Limit**		87.10%

Note 1: Change in California per capita income, 3.69%, exceeds the change in assessed valuation due to nonresidential new construction, 0.43% (provided by HdL).

Note 2: County of Los Angeles population growth, 0.55%, exceeds South Pasadena population growth, 0.00%. Total City population as of January 1, 2017 is 25,992.

Exhibit B

Non-Proceeds of Taxes

Fiscal Year 2018-19

		Proceeds of Taxes	Nonproceeds of Taxes	Total
101	**General Fund**			
	Property Tax	11,145,000		11,145,000
	Library Special Tax	318,000		318,000
	Sales Tax	2,625,000		2,625,000
	PSAF Sales Tax (Exempted by Statute)		300,000	300,000
	Business License Tax	425,000		425,000
	Utility Users Tax	3,430,000		3,430,000
	Property Tax - VLF/Swap	2,710,000		2,710,000
	Franchise Fees		830,000	830,000
	Real Property Transfer Tax	200,000		200,000
	Licenses/Permits		616,400	616,400
	Fines/Penalties		380,000	380,000
	Rentals		536,136	536,136
	State, Federal & Local Reimb/Grants		45,000	45,000
	Fees & Charges		2,703,700	2,703,700
	Workers' Comp. Reimbursement		25,000	25,000
	Liability Reimbursement		20,000	20,000
	Reimbursement - Sewer/Water		483,382	483,382
	Recycling		67,000	67,000
	Other Revenues		60,000	60,000
	Total General Fund	**20,853,000**	**6,066,618**	**26,919,618**
	Other Funds			
205	Local Transit (Prop A)	508,735	6,200	514,935
207	Local Transit (Prop C)	421,982	40,000	461,982
210	Sewer (Enterprise Fund)		1,505,000	1,505,000
215	Lighting and Landscape Maintenance		910,000	910,000
217	PEG Fees		13,000	13,000
218	Clean Air (AB2766)		32,000	32,000
220	Parking and Business Improve. Tax	130,000	30,000	160,000
226	Mission Meridian Parking Garage		2,000	2,000
228	Housing Authority		20,748	20,748
230	State Gas Tax (Applied to State's Limit)		661,605	661,605
232	County Park Bond		400,000	400,000
233	Measure R	316,493		316,493
236	Measure M	358,685		358,685
237	ROAD MAINT. & REHAB. ACCT.	431,624		431,624
245	Bike & Pedestrian (SB821)		17,630	17,630
255	Capital Growth		65,000	65,000
260	CDBG		143,995	143,995
272	State COPS Grants		115,000	115,000
275	Park Impact Fees		65,000	65,000
295	Arroyo Seco Golf Course (Enterprise)		1,164,101	1,164,101
500	Water (Enterprise Fund)		8,771,000	8,771,000
510	Water & Sewer Impact Fees		270,000	270,000
927	Redevelopment Obligations Trust Fund		195,570	195,570
	Total Other Funds	**2,167,519**	**14,427,849**	**16,595,368**
	Subtotal All Funds	**23,020,519**	**20,494,467**	**43,514,986**
	Interest Earnings	**158,331**	**145,819**	**304,150**
	Total All Funds	**23,178,850**	**20,640,286**	**43,819,136**

Exhibit C
Excluded Costs
Fiscal Year 2018-19

Category	**Amount**
Federal Mandates	
Social Security/Medicare	243,011
Non-Incidental Overtime - FLSA	125,000
	368,011
Qualified Debt Service	
	0
Total Excluded Costs	**368,011**

Exhibit D
Interest Earnings
Fiscal Year 2018-19

Category	**Amount**
Non-Interest Tax Proceeds	23,020,519
Exclusions	(368,011)
	22,652,508
Total Non-Interest Budget	43,514,986
Tax Proceeds as Percent of Budget	52.06%
Interest Earnings	304,150
Amount of Interest Earned from Taxes	**158,331**
Amount of Interest Earned from Non-Taxes	**145,819**

City Council Agenda Report

ITEM NO. 15

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Karen Aceves, Acting Finance Director
Albert Trinh, Finance Manager

SUBJECT: **Adoption of a Resolution Approving the City of South Pasadena Investment Policy for Fiscal Year 2019-20**

Recommendation Action
It is recommended that the City Council adopt a resolution approving the Fiscal Year (FY) 2019-20 Investment Policy.

Commission Review and Recommendation
This matter was reviewed by the Finance Commission and recommends that the City Council adopt a resolution approving the FY 2019-20 Investment Policy.

Executive Summary
The proposed Investment Policy for FY 2019-20 is identical to the FY 2018-19 Policy with the exception of minor technical corrections made by the State Legislature relating primarily to permissible portfolio allocations, and minor language edits in the Table of Notes.

Discussion/Analysis
Funds held in the City's brokerage account represent amounts that are above and beyond what is needed to maintain a stable cash flow and meet the City's ongoing operational, as well as emergency needs. For those purposes, the City continues to maintain strong balances in our demand accounts with the Local Agency Investment Fund (LAIF) and Bank of the West.

Background
Each year, the City Council is required to adopt an Investment Policy. The types of investment vehicles that cities are permitted to use are specified in the California Government Code (Government Code), which also explicitly requires that investment decisions be based first on the safety of the investment, followed by its liquidity, and only when these conditions are satisfied can yield be considered. Prior to FY 2014-15, the City of South Pasadena's (City) policy was actually far more restrictive than what the Government Code allows.

Two major changes to the Investment Policy were incorporated; the first was in the area of permitted investments, which now mirrors the Government Code, and the second related to the maturity of an investment, which in the earlier policy was limited to three and one-half years, but was extended to the maximum permitted length of five years.

In accordance with requests from the City Council, the Finance Commission addressed the issue of socially-conscious investing at its September 23, 2015 meeting. After a lengthy discussion, the Finance Commission recommended that due to the complexity of this topic the City Council should convene a special meeting, and invite the City's investment advisors, to discuss how the City might go about developing a policy regarding socially-conscious investing. This topic is still under review by the Finance Commission, and will agenized for discussion at a future meeting.

Legal Review
The City Attorney has reviewed this item.

Fiscal Impact
None.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachments:
1. Resolution Adopting the FY 2019-20 Investment Policy
2. Exhibit A City of South Pasadena Investment Policy FY2019/20 (redlined)

ATTACHMENT 1

Resolution Adopting FY 2019-20 Investment Policy

RESOLUTION NO. ____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, ADOPTING AN INVESTMENT POLICY FOR FISCAL YEAR 2019-20

WHEREAS, the City Council of South Pasadena recognizes the need for prudent investment management; and

WHEREAS, investment management strategies are normally outlined in a document defined as an "Investment Policy"; and

WHEREAS, California Government Code Section 53646 requires an annual submission of an investment policy to the legislative body.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA, DOES RESOLVE, DECLARE, DETERMINE AND ORDER AS FOLLOWS:

SECTION 1. The Investment Policy attached hereto and incorporated herein as "Exhibit A" is hereby adopted as the Investment Policy of the City of South Pasadena for Fiscal Year 2019-20.

SECTION 2. This resolution shall become effective immediately upon adoption.

SECTION 3. The City Clerk of the City of South Pasadena shall certify to the passage and adoption of this resolution and its approval by the City Council and shall cause the same to be listed in the records of the City.

PASSED, APPROVED AND ADOPTED ON this 4th day of December, 2019.

Marina Khubesrian, M.D., Mayor

ATTEST:

Evelyn G. Zneimer, City Clerk
(seal)

APPROVED AS TO FORM:

Teresa L. Highsmith, City Attorney

I HEREBY CERTIFY the foregoing resolution was duly adopted by the City Council of the City of South Pasadena, California, at a regular meeting held on the 4th day of December 2019, by the following vote:

AYES: Cacciotti, Joe, Schneider, Mahmud, and Mayor Khubesrian

NOES: None

ABSENT: None

ABSTAINED: None

_____
Evelyn G. Zneimer, City Clerk
(seal)

ATTACHMENT 2

Exhibit A City of South Pasadena Investment Policy
FY2019/20 (redlined)

"EXHIBIT A"
CITY OF SOUTH PASADENA
INVESTMENT POLICY
FY
2019/2018/19

1. Introduction

The purpose of this document is to define the City's policy for investment and cash management. In accordance with California law and the public trust, it is the City's policy to invest public funds in a manner that will provide the highest investment return with the maximum security while meeting the daily cash flow demands.

2. Scope

This policy covers all financial assets and investment activities under the direct control of the City of South Pasadena.

3. Prudence

The City adheres to the guidance provided by the "prudent investor" standard, as codified in Government Code section Section 53600.3. This obligates a fiduciary to insure that:

> "When investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency. Within the limitations of this section and considering individual investments as part of an overall strategy, investments may be acquired as authorized by law.

All participants in the investment process shall act as custodians of the public trust. Investment officials shall recognize that the investment portfolio is subject to public review and evaluation. Accordingly, the overall program shall be designed and managed with a degree of professionalism that is worthy of the public trust.

4. Objectives

The primary objectives of investment activity, in order of priority, are shown below, and shall be in conformity with California Government Code section Section 53600.5:

Safety - Safety of principal is the foremost objective of the investment program. Investments shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio.

Liquidity - The investment portfolio will remain sufficiently liquid to enable the City to meet all operating requirements as prescribed by state law and which might be reasonably anticipated. An adequate portion of the portfolio should be maintained in liquid short-term securities that can be converted to cash if necessary to meet disbursement requirements. Since unanticipated cash requirements do, indeed, arise, most investments will be in securities with active secondary or resale markets. Emphasis shall be on marketable securities with low sensitivity to market risk.

Yield - Yield should become a consideration only after the more basic requirements of safety and liquidity have been met. The investment portfolio shall be designed with the objective of attaining a rate of return throughout budgetary and economic cycles commensurate with the City's investment risk restraints and the cash flow characteristics of the portfolio.

5. Delegation of Authority

Authority to manage the City's investment program is derived from California Government Code Sections 53600 *et seq*. By adoption of this policy, the City Council delegates investment authority to the City Treasurer. Such authority may be revoked by the City Council in writing at any time. The Treasurer shall establish procedures for the operation of the investment program consistent with this investment policy. Such procedures shall include explicit delegation of authority to persons responsible for investment transactions. By adoption of this policy, the City Treasurer appoints the Finance Director and ~~Assistant Finance Director~~Finance Manager as Deputy City Treasurer(s). The names of those persons to whom investment authority is delegated will be submitted to City Council for approval. No person may engage in an investment transaction except as provided under the terms of this policy and its related procedures. The Treasurer shall be responsible for all transactions undertaken and shall establish a system of controls to regulate the investment activities.

6. Reporting

The City Treasurer shall submit a monthly investment report to the City Council and copied to the Finance Committee based on summaries provided by the Finance Department. This report will include the following required elements:

A. A report of investment activity for the month
   1. Maturities, withdrawals, sales and called investments
   2. New investments

B. A statement of investment balances at month end
   1. Type of investment and par value, if applicable
   2. Issuing institution
   3. Date of maturity
   4. Amount of deposit or cost of security
   5. Current market value of securities with maturity in excess of twelve months
   6. Rate of interest or yield to maturity at purchase date
   7. Rate of interest or yield to maturity at the report date
   8. A representation certifying compliance of the City's investment activities to the City's Statement of Investment Policy.
   9. A representation as to the availability of cash to meet the City's expenditures over the next six months, as required in Section 53646 (2) (b) (3), based on cash flow projections provided by the Finance Department.

7. Authorized and Suitable Investment Instruments

Purchase of investments will be made with surplus funds available. The investments will be paid for, in full, as soon as practical after the time of trade. Purchases will not be made using leverage, margin accounts, or other unfunded mechanisms. No investments shall conflict with Government Code section 53601.

Eligible vehicles for the investment of funds shall be limited to the following table:

ALLOWABLE INVESTMENT INSTRUMENTS PER STATE GOVERNMENT CODE (AS OF JANUARY 1, 2019)[A] APPLICABLE TO ALL LOCAL AGENCIES[B]

Investment Type	Maximum Remaining Maturity[C]	Maximum Specified % of Portfolio[D]	Minimum Quality Requirements
Local Agency Bonds	5 years	None	None
U.S. Treasury Obligations	5 years	None	None
State Obligations: CA and Others	5 years	None	None
CA Local Agency Obligations	5 years	None	None
U.S. Agency Obligations	5 years	None	None
Bankers' Acceptances	180 days	40%[E]	None
Commercial Paper: Non-pooled Funds[F]	270 days or less	25% of the agency's money[G]	Highest letter and number rating by an NRSRO[H]
Commercial Paper: Pooled Funds[I]	270 days or less	40% of the agency's money[G]	Highest letter and number rating by an NRSRO[H]
Negotiable Certificates of Deposit	5 years	30%[J]	None
Non-negotiable Certificates of Deposit	5 years	None	None
Placement Service Deposits	5 years	30%[K]	None
Placement Service Certificates of Deposit	5 years	30%[K]	None
Repurchase Agreements	1 year	None	None
Reverse Repurchase Agreements and Securities Lending Agreements	92 days[L]	20% of the base value of the portfolio	None[M]
Medium-term Notes[N]	5 years or less	30%	"A" rating category or its equivalent or better
Mutual Funds and Money Market Mutual Funds	N/A	20%[O]	Multiple[P,Q]
Collateralized Bank Deposits[R]	5 years	None	None
Mortgage Pass–through and Asset Backed Securities	5 years or less	20%	"AA" rating category or its equivalent or better
County Pooled Investment Funds	N/A	None	None
Joint Powers Authority Pool	N/A	None	Multiple[S]
Local Agency Investment Fund (LAIF)	N/A	None	None
Voluntary Investment Program Fund[T]	N/A	None	None
Supranational Obligations[U]	5 years or less	30%	"AA" rating category or its equivalent or better

TABLES OF NOTES

A Sources: Sections 16340, 16429.1, 27133, 53601, 53601.6, 53601.8, 53630 et seq., 53635, and 53635.8.

B Municipal Utilities Districts have the authority under the Public Utilities Code Section 12871 to invest in certain securities not addressed here.

C Section 53601 provides that the maximum term of any investment authorized under this section, unless otherwise stated, is five years. However, the legislative body may grant express authority to make investments either specifically or as a part of an investment program approved by the legislative body that exceeds this five year remaining maturity limit. Such approval must be issued no less than three months prior to the purchase of any security exceeding the five-year maturity limit.

D Percentages apply to all portfolio investments regardless of source of funds. For instance, cash from a reverse repurchase agreement would be subject to the restrictions.

E No more than 30 percent of the agency's money may be in bankers' acceptances of any one commercial bank.

F Includes agencies defined as a city, a district, or other local agency that do not pool money in deposits or investment with other local agencies, other than local agencies that have the same governing body.

G Local agencies, other than counties or a city and county, may purchase no more than 10 percent of the outstanding commercial paper of any single issuer.

H Issuing corporation must be organized and operating within the U.S., have assets in excess of $500 million, and debt other than commercial paper must be in a rating category of "A" or its equivalent or higher by a nationally recognized statistical rating organization, or the issuing corporation must be organized within the U.S. as a special purpose corporation, trust, or LLC, have program wide credit enhancements, and have commercial paper that is rated "A-1" or higher, or the equivalent, by a nationally recognized statistical rating agency.

I Includes agencies defined as a county, a city and county, or other local agency that pools money in deposits or investments with other local agencies, including local agencies that have the same governing body. Local agencies that pool exclusively with other local agencies that have the same governing body must adhere to the limits set forth in Section 53601(h)(2)(C).

J No more than 30 percent of the agency's money may be in negotiable certificates of deposit that are authorized under Section 53601(i).

K No more than 30 percent of the agency's money may be invested in deposits, including certificates of deposit, through a placement service (excludes negotiable certificates of deposit authorized under Section 53601(i)).

L Reverse repurchase agreements or securities lending agreements may exceed the 92-day term if the agreement includes a written codicil guaranteeing a minimum earning or spread for the entire period between the sale of a security using a reverse repurchase agreement or securities lending agreement and the final maturity dates of the same security.

M Reverse repurchase agreements must be made with primary dealers of the Federal Reserve Bank of New York or with a nationally or state chartered bank that has a significant relationship with the local agency. The local agency must have held the securities used for the agreements for at least 30 days.

N "Medium-term notes" are defined in Section 53601 as "all corporate and depository institution debt securities with a maximum remaining maturity of five years or less, issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States."

O No more than 10 percent invested in any one mutual fund. This limitation does not apply to money market mutual funds.

P A mutual fund must receive the highest ranking by not less than two nationally recognized rating agencies or the fund must retain an investment advisor who is registered with the SEC (or exempt from registration), has assets under management in excess of $500 million, and has at least five years' experience investing in instruments authorized by Sec-tions 53601 and 53635.

Q A money market mutual fund must receive the highest ranking by not less than two nationally recognized statistical rating organizations or retain an investment advisor registered with the SEC or exempt from registration and who has not less than five years' experience investing in money market instruments with assets under management in excess of $500 million.

R Investments in notes, bonds, or other obligations under Section 53601(n) require that collateral be placed into the custody of a trust company or the trust department of a bank that is not affiliated with the issuer of the secured obligation, among other specific collateral requirements.

S A joint powers authority pool must retain an investment advisor who is registered with the SEC (or exempt from registration), has assets under management in excess of $500 million, and has at least five years' experience investing in instruments authorized by Section 53601, subdivisions (a) to (o).

T Local entities can deposit between $200 million and $10 billion into the Voluntary Investment Program Fund, upon approval by their governing bodies. Deposits in the fund will be invested in the Pooled Money Investment Account.

U Only those obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), and Inter-American Development Bank (IADB), with a maximum remaining maturity of five years or less.

8. Maturities

To the extent possible, the City of South Pasadena will attempt to match its investments with anticipated cash flow requirements. Securities shall not be purchased which have maturity dates of more than five years. At the time of purchase no more than one third of the investment portfolio shall have a maturity date in excess of three years into the future.

All investment instruments will be acquired with a view toward holding such instruments to their maturity, thereby avoiding risks to loss of principal due to market fluctuations.

9. Portfolio Adjustments

The moneys entrusted to the City Treasurer will be a passively managed portfolio. However, the City Treasurer will make best efforts to observe, review, and react to changing conditions that affect the portfolio. Should any investments exceed a percentage-of-portfolio limitation due to an incident such as fluctuation in portfolio size, the affected securities may be held to maturity to avoid losses. When no loss is indicated, the Treasurer shall consider restructuring the portfolio basing his decision on the expected length of time the portfolio will be unbalanced. If this occurs, the City Council shall be notified by information contained in the next monthly report as required in Section 6 of this policy.

10. Authorized Banks and Security Dealers

In selecting financial institutions for the deposit or investment of City funds, the Treasurer shall consider the credit-worthiness of institutions, and utilize only those depositories that are qualified public depositories as established by state law. In addition, only broker-dealers that are authorized in the state of California will be utilized. The Treasurer shall continue to monitor financial institutions' credit characteristics and financial history throughout the period in which City funds are deposited or invested.

All broker-dealers who desire to become qualified bidders for investment transactions must supply the treasurer with the following items: audited financial statements; Financial Industry Regulatory Authority (FINRA) certification; proof of state registration; and certification of awareness of, and familiarity with South Pasadena's investment policy.

From time to time, the Finance Director will review the broker-dealer relationships, fees and charges for reasonableness and competitiveness.

11. Ethics and Conflicts of Interest

Officers and employees involved in the investment process shall refrain from personal business activity that could conflict with proper execution of the investment program, or which could impair their ability to make impartial investment decisions. Employees and investment officials shall disclose to the City Manager any financial interests in financial institutions that conduct business within the City of South Pasadena, and they shall further disclose any large personal financial investment positions that could be related to the performance of the City, particularly with regard to the timing of purchases and sales.

12. Safekeeping and Custody

At a minimum, securities will be held in safekeeping in an account in the name of the City of South Pasadena at a broker which is adequately insured by Securities Investor Protection

Corporation. Securities purchased from broker/dealers may be on a "delivery versus payment" basis and held in a third party custodian account in a manner that establishes the City's right of ownership.

13. Internal Control

The City Treasurer and Deputy City Treasurers are responsible for ensuring compliance with the City's Investment Policy as well as for establishing systems of internal control designed to prevent losses due to fraud, employee error, misrepresentation by third parties, unanticipated changes in financial markets or imprudent actions by City officers and employees. No investment personnel may engage in an investment transaction except as provided under the terms of this policy. No investment transaction, other than cash movements between Bank of the West and LAIF, will occur without the authorization of the City Treasurer and one of the Deputy City Treasurers as defined in Section 5 of this policy. In the absence of the City Treasurer, the Mayor shall authorize investment transactions on his/her behalf.

To strengthen internal control there are specific limits set on the locations to which the Treasurer or his representative may make transfers of funds via telephone. The Treasurer hereby has the limited authorization to make telephone transfers of funds *only* between the City's bank account, the City's investment accounts at the LAIF and the City's broker-dealer after an investment decision has been made. Telephone transfers can only be made among these three accounts. Any other transfers of funds must be executed through written means (such as a check or warrant) or normal electronic funds transfers with adequate written documentation and approval. The City's bank, broker-dealer, and the Local Agency Investment Fund are informed in writing of these limitations.

At the time of the annual audit of the City's financial statements, the audit program by the independent auditor will include an evaluation and report to the City Council regarding the compliance with the City's investment policy.

14. Statement of Investment Policy

The Statement of Investment Policy shall be updated annually in the month of August by the City Treasurer and Finance Committee, and submitted to the City Council for review and adoption.

City Council Agenda Report

ITEM NO. 16

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Shahid Abbas, Director of Public Works
Kristine Courdy, Deputy Director of Public Works

SUBJECT: **Award of Contract for the Pavement and Asset Management Information Services to Bucknam Infrastructure Group, Inc. for a Total Not-to-Exceed Amount of $68,000**

Recommendation

It is recommended that the City Council:

1. Accept a proposal dated September 5, 2019 from Bucknam Infrastructure Group, Inc. (Bucknam) for the preparation of Pavement Management Information Services; and
2. Authorize the City Manager to execute the agreements and any amendments with Bucknam for a not-to-exceed amount of $74,800 ($68,000 for the proposal amount and $6,800 for 10% contingency); and
3. Reject all other proposals received.

Background

In 2015, the City of South Pasadena (City) completed the Pavement Management Program (PMP) which generated a comprehensive report of the Citywide Pavement Condition Index (PCI) for all streets. PCI is a condition rating that ranges from 100, a new pavement section, to 0 for a section that has structurally failed and deteriorated dramatically. The PCI, is utilized on an annual basis to establish a street list for capital improvements. The City has 68.9 section miles of roadway, and in 2015 the overall condition of the City's pavement network was rated as poor (average PCI of 59). The current PMP is five years old and in need of an update. The 2019-20 FY approved budget includes a project to update the existing PMP.

Discussion/Analysis

The City's proposed PMP update will be the following:

- A comprehensive Pavement Management Information Services (PMIS) update that will integrate the data from the PMP with existing City assets (such as water, stormwater, sewer, street lighting, traffic signals, street signs, pavement markings) into a GIS system.
- Detailed condition assessment of existing pavement and sidewalks.
- Analyze the pavement data utilizing engineering software (MicroPAVER) and provide the City a license for the software.

- Prepare budgetary analysis and reports for pavement maintenance and rehabilitation.
- Develop Capital Improvement Project (CIP) programs for the City's pavement and sidewalk systems.
- Ongoing staff training and support with the GIS assets and PMIS.

On September 5, 2019 the proposals were received from three engineering firms: Bucknam Infrastructure Group, Inc., NCE and IMS. A committee consisting of Public Works staff reviewed and ranked all of the proposals and after reviewing the proposals, Bucknam Infrastructure Group, Inc. was ranked as the best qualified firm to perform the services, based on a combination of experience, scope of services and the project understanding.

Legal Review
The City Attorney has reviewed this item.

Fiscal Impact
Funding for this Project is available in the FY2019-20 budget in the Public Works Administration Consulting Services and Prop C budgets.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachment: Professional Services Agreement with Bucknam Infrastructure Group, Inc.

PROFESSIONAL SERVICES AGREEMENT
FOR CONSULTANT SERVICES

(City of South Pasadena / Bucknam Infrastructure Group, Inc.)

1. IDENTIFICATION

This PROFESSIONAL SERVICES AGREEMENT ("Agreement") is entered into by and between the City of South Pasadena, a California municipal corporation ("City"), and Bucknam Infrastructure Group, Inc. ("Consultant").

2. RECITALS

2.1. City has determined that it requires the following professional services from a consultant: Pavement and Asset Management Information Systems Services.

2.2. Consultant represents that it is fully qualified to perform such professional services by virtue of its experience and the training, education and expertise of its principals and employees. Consultant further represents that it is willing to accept responsibility for performing such services in accordance with the terms and conditions set forth in this Agreement.

2.3. Consultant represents that it has no known relationships with third parties, City Council members, or employees of City which would (1) present a conflict of interest with the rendering of services under this Agreement under Government Code Section 1090, the Political Reform Act (Government Code Section 81000 *et seq.*), or other applicable law, (2) prevent Consultant from performing the terms of this Agreement, or (3) present a significant opportunity for the disclosure of confidential information.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions herein contained, City and Consultant agree as follows:

3. DEFINITIONS

3.1. "Scope of Services": Such professional services as are set forth in Consultant's September 5, 2019 proposal to City attached hereto as Exhibit A and incorporated herein by this reference.

3.2. "Agreement Administrator": The Agreement Administrator for this project is Kristine Courdy, Deputy Public Works Director. The Agreement Administrator shall be the principal point of contact at the City for this project. All services under this Agreement shall be performed at the request of the Agreement Administrator. The Agreement Administrator will establish the timetable for completion of services and any interim milestones. City reserves the right to change this designation upon written notice to Consultant

3.3. "Approved Fee Schedule": Consultant's compensation rates are set forth in the fee schedule attached hereto as Exhibit B and incorporated herein by this reference. This fee schedule shall remain in effect for the duration of this Agreement unless modified in writing by mutual agreement of the parties.

3.4. "Maximum Amount": The highest total compensation and costs payable to Consultant by City under this Agreement. The Maximum Amount under this Agreement is sixty eight thousand Dollars ($68,000).

3.5. "Commencement Date": December 4, 2019.

3.6. "Termination Date": December 31, 2020.

4. TERM

The term of this Agreement shall commence at 12:00 a.m. on the Commencement Date and shall expire at 11:59 p.m. on the Termination Date unless extended by written agreement of the parties or terminated earlier under Section 18 ("Termination") below. Consultant may request extensions of time to perform the services required hereunder. Such extensions shall be effective if authorized in advance by City in writing and incorporated in written amendments to this Agreement.

5. CONSULTANT'S DUTIES

5.1. **Services**. Consultant shall perform the services identified in the Scope of Services. City shall have the right to request, in writing, changes in the Scope of Services. Any such changes mutually agreed upon by the parties, and any corresponding increase or decrease in compensation, shall be incorporated by written amendment to this Agreement.

5.2. **Coordination with City**. In performing services under this Agreement, Consultant shall coordinate all contact with City through its Agreement Administrator.

5.3. **Budgetary Notification**. Consultant shall notify the Agreement Administrator, in writing, when fees and expenses incurred under this Agreement have reached eighty percent (80%) of the Maximum Amount. Consultant shall concurrently inform the Agreement Administrator, in writing, of Consultant's estimate of total expenditures required to complete its current assignments before proceeding, when the remaining work on such assignments would exceed the Maximum Amount.

5.4. **Business License.** Consultant shall obtain and maintain in force a City business license for the duration of this Agreement.

5.5. **Professional Standards.** Consultant shall perform all work to the standards of Consultant's profession and in a manner reasonably satisfactory to City. Consultant shall keep itself fully informed of and in compliance with all local, state, and federal

laws, rules, and regulations in any manner affecting the performance of this Agreement, including all Cal/OSHA requirements, the conflict of interest provisions of Government Code § 1090 and the Political Reform Act (Government Code § 81000 et seq.).

5.6. **Avoid Conflicts.** During the term of this Agreement, Consultant shall not perform any work for another person or entity for whom Consultant was not working at the Commencement Date if such work would present a conflict interfering with performance under this Agreement. However, City may consent in writing to Consultant's performance of such work.

5.7. **Appropriate Personnel.** Consultant has, or will secure at its own expense, all personnel required to perform the services identified in the Scope of Services. All such services shall be performed by Consultant or under its supervision, and all personnel engaged in the work shall be qualified to perform such services. Steve Bucknam shall be Consultant's project administrator and shall have direct responsibility for management of Consultant's performance under this Agreement. No change shall be made in Consultant's project administrator without City's prior written consent.

5.8. **Substitution of Personnel.** Any persons named in the proposal or Scope of Services constitutes a promise to the City that those persons will perform and coordinate their respective services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence upon written approval of City. If City and Consultant cannot agree as to the substitution of key personnel, City may terminate this Agreement for cause.

5.9. **Permits and Approvals.** Consultant shall obtain, at its sole cost and expense, all permits and regulatory approvals necessary for Consultant's performance of this Agreement. This includes, but shall not be limited to, professional licenses, encroachment permits and building and safety permits and inspections.

5.10. **Notification of Organizational Changes.** Consultant shall notify the Agreement Administrator, in writing, of any change in name, ownership or control of Consultant's firm or of any subcontractor. Change of ownership or control of Consultant's firm may require an amendment to this Agreement.

5.11. **Records.** Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to City under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such documents shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of City. In addition, pursuant to Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars, all such documents and

this Agreement shall be subject to the examination and audit of the State Auditor, at the request of City or as part of any audit of City, for a period of three (3) years after final payment under this Agreement.

6. SUBCONTRACTING

6.1. **General Prohibition.** This Agreement covers professional services of a specific and unique nature. Except as otherwise provided herein, Consultant shall not assign or transfer its interest in this Agreement or subcontract any services to be performed without amending this Agreement.

6.2. **Consultant Responsible.** Consultant shall be responsible to City for all services to be performed under this Agreement.

6.3. **Identification in Fee Schedule.** All subcontractors shall be specifically listed and their billing rates identified in the Approved Fee Schedule, Exhibit B. Any changes must be approved by the Agreement Administrator in writing as an amendment to this Agreement.

6.4. **Compensation for Subcontractors.** City shall pay Consultant for work performed by its subcontractors, if any, only at Consultant's actual cost plus an approved mark-up as set forth in the Approved Fee Schedule, Exhibit B. Consultant shall be liable and accountable for any and all payments, compensation, and federal and state taxes to all subcontractors performing services under this Agreement. City shall not be liable for any payment, compensation, or federal and state taxes for any subcontractors.

7. COMPENSATION

7.1. **General.** City agrees to compensate Consultant for the services provided under this Agreement, and Consultant agrees to accept payment in accordance with the Fee Schedule in full satisfaction for such services. Compensation shall not exceed the Maximum Amount. Consultant shall not be reimbursed for any expenses unless provided for in this Agreement or authorized in writing by City in advance.

7.2. **Invoices.** Consultant shall submit to City an invoice, on a monthly basis or as otherwise agreed to by the Agreement Administrator, for services performed pursuant to this Agreement. Each invoice shall identify the Maximum Amount, the services rendered during the billing period, the amount due for the invoice, and the total amount previously invoiced. All labor charges shall be itemized by employee name and classification/position with the firm, the corresponding hourly rate, the hours worked, a description of each labor charge, and the total amount due for labor charges.

7.3. **Taxes.** City shall not withhold applicable taxes or other payroll deductions from payments made to Consultant except as otherwise required by law. Consultant shall be solely responsible for calculating, withholding, and paying all taxes.

7.4. **Disputes.** The parties agree to meet and confer at mutually agreeable times to resolve any disputed amounts contained in an invoice submitted by Consultant.

7.5. **Additional Work.** Consultant shall not be reimbursed for any expenses incurred for work performed outside the Scope of Services unless prior written approval is given by the City through a fully executed written amendment. Consultant shall not undertake any such work without prior written approval of the City.

7.6. **City Satisfaction as Precondition to Payment.** Notwithstanding any other terms of this Agreement, no payments shall be made to Consultant until City is satisfied that the services are satisfactory.

7.7. **Right to Withhold Payments.** If Consultant fails to provide a deposit or promptly satisfy an indemnity obligation described in Section 11, City shall have the right to withhold payments under this Agreement to offset that amount.

8. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. Consultant shall defend, indemnify, and hold the City, tis elected officials, officers, employees, and agents free and harmless form any claim or liability arising out of any failure or alleged failure of Consultant to comply with the Prevailing Wage Laws.

9. OWNERSHIP OF WRITTEN PRODUCTS

All reports, documents or other written material ("written products" herein) developed by Consultant in the performance of this Agreement shall be and remain the property of City without restriction or limitation upon its use or dissemination by City except as provided by law. Consultant may take and retain copies of such written products as desired, but no such written products shall be the subject of a copyright application by Consultant.

10. RELATIONSHIP OF PARTIES

10.1. **General.** Consultant is, and shall at all times remain as to City, a wholly independent contractor.

10.2. **No Agent Authority.** Consultant shall have no power to incur any debt, obligation, or liability on behalf of City or otherwise to act on behalf of City as an agent. Neither City nor any of its agents shall have control over the conduct of Consultant or any of Consultant's employees, except as set forth in this Agreement. Consultant shall not represent that it is, or that any of its agents or employees are, in any manner employees of City.

10.3. **Independent Contractor Status.** Under no circumstances shall Consultant or its employees look to the City as an employer. Consultant shall not be entitled to any benefits. City makes no representation as to the effect of this independent contractor relationship on Consultant's previously earned California Public Employees Retirement System ("CalPERS") retirement benefits, if any, and Consultant specifically assumes the responsibility for making such a determination. Consultant shall be responsible for all reports and obligations including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation, and other applicable federal and state taxes.

10.4. **Indemnification of CalPERS Determination.** In the event that Consultant or any employee, agent, or subcontractor of Consultant providing services under this Agreement claims or is determined by a court of competent jurisdiction or CalPERS to be eligible for enrollment in CalPERS as an employee of the City, Consultant shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for CalPERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

11. INDEMNIFICATION

11.1 **Definitions.** For purposes of this Section 11, "Consultant" shall include Consultant, its officers, employees, servants, agents, or subcontractors, or anyone directly or indirectly employed by either Consultant or its subcontractors, in the performance of this Agreement. "City" shall include City, its officers, agents, employees and volunteers.

11.2 **Consultant to Indemnify City.** To the fullest extent permitted by law, Consultant shall indemnify, hold harmless, and defend City from and against any and all claims, losses, costs or expenses for any personal injury or property damage arising out of or in connection with Consultant's alleged negligence, recklessness or willful misconduct or other wrongful acts, errors or omissions of Consultant or failure to comply with any provision in this Agreement.

11.3 **Scope of Indemnity.** Personal injury shall include injury or damage due to death or injury to any person, whether physical, emotional, consequential or otherwise, Property damage shall include injury to any personal or real property. Consultant shall not be required to indemnify City for such loss or damage as is caused by the sole active negligence or willful misconduct of the City.

11.4 **Attorneys Fees.** Such costs and expenses shall include reasonable attorneys' fees for counsel of City's choice, expert fees and all other costs and fees of litigation. Consultant shall not be entitled to any refund of attorneys' fees, defense costs or expenses in the event that it is adjudicated to have been non-negligent.

11.5 **Defense Deposit.** The City may request a deposit for defense costs from Consultant with respect to a claim. If the City requests a defense deposit, Consultant shall provide it within 15 days of the request.

11.6 **Waiver of Statutory Immunity.** The obligations of Consultant under this Section 11 are not limited by the provisions of any workers' compensation act or similar act. Consultant expressly waives its statutory immunity under such statutes or laws as to City.

11.7 **Indemnification by Subcontractors.** Consultant agrees to obtain executed indemnity agreements with provisions identical to those set forth here in this Section 11 from each and every subcontractor or any other person or entity involved in the performance of this Agreement on Consultant's behalf.

11.8 **Insurance Not a Substitute.** City does not waive any indemnity rights by accepting any insurance policy or certificate required pursuant to this Agreement. Consultant's indemnification obligations apply regardless of whether or not any insurance policies are determined to be applicable to the claim, demand, damage, liability, loss, cost or expense.

12. INSURANCE

12.1. **Insurance Required.** Consultant shall maintain insurance as described in this section and shall require all of its subcontractors, consultants, and other agents to do the same. Approval of the insurance by the City shall not relieve or decrease any liability of Consultant Any requirement for insurance to be maintained after completion of the work shall survive this Agreement.

12.2. **Documentation of Insurance.** City will not execute this agreement until it has received a complete set of all required documentation of insurance coverage. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. Consultant shall file with City:

- Certificate of Insurance, indicating companies acceptable to City, with a Best's Rating of no less than A:VII showing. The Certificate of Insurance must include the following reference: South Pasadena Pavement and Asset Management Information Systems Services.
- Documentation of Best's rating acceptable to the City.
- Original endorsements effecting coverage for all policies required by this Agreement.

- City reserves the right to obtain a full certified copy of any Insurance policy and endorsements. Failure to exercise this right shall not constitute a waiver of the right to exercise later.

12.3. **Coverage Amounts.** Insurance coverage shall be at least in the following minimum amounts:

• Professional Liability Insurance:	$2,000,000 per occurrence, $4,000,000 aggregate
• General Liability:	
• General Aggregate:	$4,000,000
• Products Comp/Op Aggregate	$4,000,000
• Personal & Advertising Injury	$2,000,000
• Each Occurrence	$2,000,000
• Fire Damage (any one fire)	$ 100,000
• Medical Expense (any 1 person)	$ 10,000
• Workers' Compensation:	
• Workers' Compensation	Statutory Limits
• EL Each Accident	$1,000,000
• EL Disease - Policy Limit	$1,000,000
• EL Disease - Each Employee	$1,000,000
• Automobile Liability	
• Any vehicle, combined single limit	$1,000,000

Any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements or limits shall be available to the additional insured. Furthermore, the requirements for coverage and limits shall be the greater of (1) the minimum coverage and limits specified in this Agreement, or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured

12.4. **General Liability Insurance.** Commercial General Liability Insurance shall be no less broad than ISO form CG 00 01. Coverage must be on a standard Occurrence form. Claims-Made, modified, limited or restricted Occurrence forms are not acceptable.

12.5. **Worker's Compensation Insurance.** Consultant is aware of the provisions of Section 3700 of the Labor Code which requires every employer to carry Workers' Compensation (or to undertake equivalent self-insurance), and Consultant will comply with such provisions before commencing the performance of the work of this Agreement. If such insurance is underwritten by any agency other than the State

Compensation Fund, such agency shall be a company authorized to do business in the State of California.

12.6. **Automobile Liability Insurance.** Covered vehicles shall include owned if any, non-owned, and hired automobiles and, trucks.

12.7. Pr**ofessional Liability Insurance or Errors & Omissions Coverage.** The deductible or self-insured retention may not exceed $50,000. If the insurance is on a Claims-Made basis, the retroactive date shall be no later than the commencement of the work. Coverage shall be continued for two years after the completion of the work by one of the following: (1) renewal of the existing policy; (2) an extended reporting period endorsement; or (3) replacement insurance with a retroactive date no later than the commencement of the work under this Agreement.

12.8. **Claims-Made Policies.** If any of the required policies provide coverage on a claims-made basis the Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work. Claims-Made Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of five (5) years after completion of contract work.

12.9. **Additional Insured Endorsements.** The City, its City Council, Commissions, officers, and employees of South Pasadena must be endorsed as an additional insured for each policy required herein, other than Professional Errors and Omissions and Worker's Compensation, for liability arising out of ongoing and completed operations by or on behalf of the Consultant. Consultant's insurance policies shall be primary as respects any claims related to or as the result of the Consultant's work. Any insurance, pooled coverage or self-insurance maintained by the City, its elected or appointed officials, directors, officers, agents, employees, volunteers, or consultants shall be non-contributory. All endorsements shall be signed by a person authorized by the insurer to bind coverage on its behalf. General liability coverage can be provided using an endorsement to the Consultant's insurance at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10 and CG 20 37.

12.10. **Failure to Maintain Coverage.** In the event any policy is canceled prior to the completion of the project and the Consultant does not furnish a new certificate of insurance prior to cancellation, City has the right, but not the duty, to obtain the required insurance and deduct the premium(s) from any amounts due the Consultant under this Agreement. Failure of the Consultant to maintain the insurance required by this Agreement, or to comply with any of the requirements of this section, shall constitute a material breach of this Agreement.

12.11. **Notices.** Contractor shall provide immediate written notice if (1) any of the required insurance policies is terminated; (2) the limits of any of the required policies are reduced; (3) or the deductible or self-insured retention is increased. Consultant shall provide no less than 30 days' notice of any cancellation or material change to policies required by this Agreement. Consultant shall provide proof that cancelled or expired policies of insurance have been renewed or replaced with other policies providing at least the same coverage. Such proof will be furnished at least two weeks prior to the expiration of the coverages. The name and address for Additional Insured Endorsements, Certificates of Insurance and Notices of Cancellation is: City of South Pasadena, Attn: Public Works Department, South Pasadena, CA 95945.

12.12. **Consultant's Insurance Primary.** The insurance provided by Consultant, including all endorsements, shall be primary to any coverage available to City. Any insurance or self-insurance maintained by City and/or its officers, employees, agents or volunteers, shall be in excess of Consultant's insurance and shall not contribute with it.

12.13. **Waiver of Subrogation.** Consultant hereby waives all rights of subrogation against the City. Consultant shall additionally waive such rights either by endorsement to each policy or provide proof of such waiver in the policy itself.

12.14. **Report of Claims to City.** Consultant shall report to the City, in addition to the Consultant's insurer, any and all insurance claims submitted to Consultant's insurer in connection with the services under this Agreement.

12.15. **Premium Payments and Deductibles.** Consultant must disclose all deductables and self-insured retention amounts to the City. The City may require the Consultant to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within retention amounts. Ultimately, City must approve all such amounts prior to execution of this Agreement.

City has no obligation to pay any premiums, assessments, or deductibles under any policy required in this Agreement. Consultant shall be responsible for all premiums and deductibles in all of Consultant's insurance policies. The amount of deductibles for insurance coverage required herein are subject to City's approval.

12.16. **Duty to Defend and Indemnify.** Consultant's duties to defend and indemnify City under this Agreement shall not be limited by the foregoing insurance requirements and shall survive the expiration of this Agreement.

13. MUTUAL COOPERATION

13.1. **City Cooperation in Performance.** City shall provide Consultant with all pertinent data, documents and other requested information as is reasonably available for the proper performance of Consultant's services under this Agreement.

13.2. **Consultant Cooperation in Defense of Claims.** If any claim or action is brought against City relating to Consultant's performance in connection with this Agreement, Consultant shall render any reasonable assistance that City may require in the defense of that claim or action.

14. NOTICES

Any notices, bills, invoices, or reports required by this Agreement shall be deemed received on: (i) the day of delivery if delivered by hand, facsimile or overnight courier service during Consultant's and City's regular business hours; or (ii) on the third business day following deposit in the United States mail if delivered by mail, postage prepaid, to the addresses listed below (or to such other addresses as the parties may, from time to time, designate in writing).

If to City

Kristine Courdy
City of South Pasadena
Public Works
1414 Mission Street
South Pasadena, CA 91030
Telephone: (626) 403-7240
Facsimile: (626) 403-7241

If to Consultant

Steve Bucknam
3548 Seagate Way, Suite 230
Oceanside, CA 92056
Telephone: (760) 216-6529
Facsimile: (760) 216-6549

With courtesy copy to:

Teresa L. Highsmith, Esq.
South Pasadena City Attorney
Colantuono, Highsmith & Whatley, PC
790 E. Colorado Blvd. Ste. 850
Pasadena, CA 91101
Telephone: (213) 542-5700
Facsimile: (213) 542-5710

15. SURVIVING COVENANTS

The parties agree that the covenants contained in paragraph 5.11 (Records), paragraph 10.4 (Indemnification of CalPERS Determination), Section 11 (Indemnity), paragraph 12.8 (Claims-Made Policies), paragraph 13.2 (Consultant Cooperation in Defense of

Claims), and paragraph 18.1 (Confidentiality) of this Agreement shall survive the expiration or termination of this Agreement, subject to the provisions and limitations of this Agreement and all otherwise applicable statutes of limitations and repose.

16. TERMINATION

16.1. **City Termination.** City may terminate this Agreement for any reason on five calendar days' written notice to Consultant. Consultant agrees to cease all work under this Agreement on or before the effective date of any notice of termination. All City data, documents, objects, materials or other tangible things shall be returned to City upon the termination or expiration of this Agreement.

16.2. **Consultant Termination.** Consultant may terminate this Agreement for a material breach of this Agreement upon 30 days' notice.

16.3. **Compensation Following Termination.** Upon termination, Consultant shall be paid based on the work satisfactorily performed at the time of termination. In no event shall Consultant be entitled to receive more than the amount that would be paid to Consultant for the full performance of the services required by this Agreement. The City shall have the benefit of such work as may have been completed up to the time of such termination.

16.4. **Remedies.** City retains any and all available legal and equitable remedies for Consultant's breach of this Agreement.

17. INTERPRETATION OF AGREEMENT

17.1. **Governing Law.** This Agreement shall be governed and construed in accordance with the laws of the State of California.

17.2. **Integration of Exhibits.** All documents referenced as exhibits in this Agreement are hereby incorporated into this Agreement. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of any document incorporated herein by reference, the provisions of this Agreement shall prevail. This instrument contains the entire Agreement between City and Consultant with respect to the transactions contemplated herein. No other prior oral or written agreements are binding upon the parties. Amendments hereto or deviations herefrom shall be effective and binding only if made in writing and executed on by City and Consultant.

17.3. **Headings.** The headings and captions appearing at the commencement of the sections hereof, and in any paragraph thereof, are descriptive only and for convenience in reference to this Agreement. Should there be any conflict between such heading, and the section or paragraph thereof at the head of which it appears, the language of the section or paragraph shall control and govern in the construction of this Agreement.

17.4. **Pronouns.** Masculine or feminine pronouns shall be substituted for the neuter form and vice versa, and the plural shall be substituted for the singular form and vice versa, in any place or places herein in which the context requires such substitution(s).

17.5. **Severability.** If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, then such term or provision shall be amended to, and solely to the extent necessary to, cure such invalidity or unenforceability, and shall be enforceable in its amended form. In such event, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

17.6. **No Presumption Against Drafter.** Each party had an opportunity to consult with an attorney in reviewing and drafting this agreement. Any uncertainty or ambiguity shall not be construed for or against any party based on attribution of drafting to any party.

18. GENERAL PROVISIONS

18.1. **Confidentiality.** All data, documents, discussion, or other information developed or received by Consultant for performance of this Agreement are deemed confidential and Consultant shall not disclose it without prior written consent by City. City shall grant such consent if disclosure is legally required. All City data shall be returned to City upon the termination or expiration of this Agreement.

18.2. **Conflicts of Interest.** Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. Consultant further agrees to file, or shall cause its employees or subcontractor to file, a Statement of Economic Interest with the City's Filing Officer if required under state law in the performance of the services. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer, or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

18.3. **Non-assignment.** Consultant shall not delegate, transfer, subcontract or assign its duties or rights hereunder, either in whole or in part, without City's prior written consent, and any attempt to do so shall be void and of no effect. City shall not be obligated or liable under this Agreement to any party other than Consultant.

18.4. **Binding on Successors.** This Agreement shall be binding on the successors and assigns of the parties.

18.5. **No Third-Party Beneficiaries.** Except as expressly stated herein, there is no intended third-party beneficiary of any right or obligation assumed by the parties.

18.6. **Time of the Essence.** Time is of the essence for each and every provision of this Agreement.

18.7. **Non-Discrimination.** Consultant shall not discriminate against any employee or applicant for employment because of race, sex (including pregnancy, childbirth, or related medical condition), creed, national origin, color, disability as defined by law, disabled veteran status, Vietnam veteran status, religion, age (40 and above), medical condition (cancer-related), marital status, ancestry, or sexual orientation. Employment actions to which this provision applies shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; or in terms, conditions or privileges of employment, and selection for training. Consultant agrees to post in conspicuous places, available to employees and applicants for employment, the provisions of this nondiscrimination clause.

18.8. **Waiver.** No provision, covenant, or condition of this Agreement shall be deemed to have been waived by City or Consultant unless in writing signed by one authorized to bind the party asserted to have consented to the waiver. The waiver by City or Consultant of any breach of any provision, covenant, or condition of this Agreement shall not be deemed to be a waiver of any subsequent breach of the same or any other provision, covenant, or condition.

18.9. **Excused Failure to Perform.** Consultant shall not be liable for any failure to perform if Consultant presents acceptable evidence, in City's sole judgment, that such failure was due to causes beyond the control and without the fault or negligence of Consultant.

18.10. **Remedies Non-Exclusive.** Each right, power and remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise shall be cumulative and shall be in addition to every other right, power, or remedy provided for herein or now or hereafter existing at law, in equity, by statute, or otherwise. The exercise, the commencement of the exercise, or the forbearance from the exercise by any party of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by such party of any or all of such other rights, powers or remedies.

18.11. **Attorneys' Fees.** If legal action shall be necessary to enforce any term, covenant or condition contained in this Agreement, the prevailing party shall be entitled to an award of reasonable attorneys' fees and costs expended in the action.

18.12. **Venue.** The venue for any litigation shall be Los Angeles County, California and Consultant hereby consents to jurisdiction in Los Angeles County for purposes of resolving any dispute or enforcing any obligation arising under this Agreement.

TO EFFECTUATE THIS AGREEMENT, the parties have caused their duly authorized representatives to execute this Agreement on the dates set forth below.

"City"	"Consultant"
City of South Pasadena	Bucknam Infrastructure Group, Inc.
By:_____	By:_____
Signature	*Signature*
Printed:_____	Printed:_____
Title:_____	Title:_____
Date:_____	Date:_____

Attest:

By:_____
Evelyn G. Zneimer, City Clerk

Date:_____

Approved as to form:

By:_____
Teresa L. Highsmith, City Attorney

Date:_____

Exhibit A

Scope of Services

1) Project Implementation

TASK 1.1: Management & Administration - Project Kickoff

The first step in implementing a successful pavement / asset management program truly resides in frequent communication and timely scheduled data updates. For the City of South Pasadena it will be essential to establish, up front, the Public Works/Maintenance pavement management priorities. Our team will set a Project Kickoff meeting to further discuss and review in detail the expectations of the project, technical approach to the PMP and AMIS, section ID management & 70 miles of street surveys, Los Angeles County Metropolitan Authority (METRO) compliance, finalization of the scope of work and the review of schedule.

This effort will build consensus between the Street Maintenance and Public Works departments as well as build stronger ARTERIAL and LOCAL maintenance programs. The first key topics to be discussed will include the review and assessment of the existing pavement data, METRO compliance, and survey areas based on recent maintenance work and schedules, new construction, data quality and condition, current pavement procedures, historical expenditure levels, and desired service levels.

Deliverable: Meeting minutes and revised project schedule

TASK 1.2: Project Status Meetings - Quality Control Program

Status Meetings and Progress Reports*:*

- Minimum of three meetings during the project (kickoff, field, and status meetings) – minimum of eight (8) hours;
- Field review meetings;
- Monthly progress status reports will be delivered to City project manager.

Quality Control (QC)*:*

We will use a statistical sampling approach for measuring the quality of our field technician's work. In this manner, 10 percent of the original annual surveys will be re-surveyed by an independent survey crew, supervised by a field supervisor, and the results will be compared to the original surveys (this will include 7 miles of arterial/local QC). Our QC process involves checking the field crews' work in a "blind study" fashion. Quality control checks will be performed at the end of each survey week. This will ensure that all field personnel are properly collecting distresses and pavement quantities for all street segments.

PCI variance reporting will be performed where previous PCI data will be compared to newly inspected 2019 PCI data; if PCI's vary more than ten (10) points per year Bucknam staff will assess the potential cause through unrecorded work history, accelerated pavement deterioration, etc. Bucknam will record/log any discrepancies between the previous and current PMP databases (any corrections/changes to the database shall not be made without prior City staff approval).

Since we are collecting distress information on our field Tablets with the South Pasadena MicroPAVER database live, our staff will perform several quality control tests within the pavement management software using a sample set of the City of South Pasadena's street distress data. This will ensure that all system and analysis settings as well as City recommendations and standards are being followed.

Our surveys follow the accepted ASTM D6433-16 procedure requirements.

Deliverable: A copy of the QA/QC plan utilized by our staff during the project will be submitted along with the PMP certification documents.

2) Client Satisfaction

TASK 2.1: Project Deliverables

Shown throughout our Scope of Work, each Task is summarized with project deliverables. Client satisfaction will derive from frequent communication with the Project Manager and key staff members from the Public Works and Street Maintenance departments. Project success is created by delivering on three main factors;

1. Adherence to scope tasks and deliverables
2. Performing to the standard set by the Project Schedule; and
3. Controlling costs. Our Project Manager will follow each of these factors throughout the duration of the project

Deliverable: Project Status Updates, as stated in Task 1.2

3) Project Schedule

TASK 3.1: Work Flow / Project Schedule

The project schedule will demonstrate major task identified in our scope of work, as well as quality control milestones and meetings. Bucknam currently has ample staff to apply to this project in order to meet an aggressive schedule (two field technicians will drive the proactive schedule). Below are key milestones in the project schedule:

- Project Kickoff
- Survey Completion
- Delivery of draft PMP
- City comments returned to Consultant
- Delivery of City CIP Final Report
    - South Pasadena CIP data/Final Report, reporting and revenue projections
    - All necessary METRO data, reporting and revenue projections
- Implementation of MicroPAVER version 7.0.7 – Any time after acceptance of Final PMP

- One copy (.e70 file) of the MicroPAVER database will be delivered;
- All pavement and GIS data pertinent to the project deliverables will be submitted with the Final PMP report

4) Scope of Work (Pavement Management Major Tasks)

TASK 4.1: South Pasadena PMP Implementation / Update Work History

Bucknam will establish a South Pasadena Pavement Management database by utilizing the Army Corps of Engineers "MicroPAVER" software. The City will purchase MicroPAVER and Bucknum staff will create all pavement segmentation for the City's Arterial and Local programs. Our staff will define all pavement segments utilizing ASTM D6433-16 standards and will ensure that all publicly maintain streets are within the database. The City's previous PMP database (dated 2015) is currently in-hand at our offices; our staff will review this data and utilize it for establishing project surveys, data updates and GIS links.

Purchase of MicroPAVER requires a one-time purchase for $1,170 (this includes two license authorizations; annual maintenance fee after one year equals $650 per year).

Based on the pavement maintenance that has been performed by in-house staff as well as contractual maintenance, our staff will review all street activities that have been performed during the past three years. This data will be entered into MicroPAVER to enhance the recommendations for the upcoming budgetary analysis and CIP reporting.

Deliverable: MicroPAVER software and Citywide Work History Report

TASK 4.2: Conduct Pavement Condition Survey

Once the pavement segmentation has been assessed and verified, the inspection of 70 Arterial and Local miles will be performed. Our survey will ensure that all Master Plan of Arterial Highways (MPAH) routes are surveyed and up-to-date for METRO compliance. Our survey methodologies will include the following approach based on the City's cost and benefit analysis:

1. Walking/Windshield - All sections are surveyed through walking/windshield methodologies. Distress types will be collected based upon actual surface conditions and physical characteristics of the segment.
2. Surveying methods will be conducted by remaining consistent with MicroPAVER & the ASTM D6433-16 sampling guidelines while being flexible to current City requirements.

   All sample locations are observed through walking surveys; additional street factors such as unique distress areas found outside our sample areas will be recorded. According to the METRO guidelines, South Pasadena MPAH pavement sections are to be surveyed for the upcoming 2019 PMP update:

   - The inspection of approximately 69.8 miles of MPAH Arterial and Local segments will be performed – METRO compliance requirement (based on last inspection dates)
   - Recent slurry seal and overlay maintenance will reduce total mileage of survey - TBD

Our staff will establish all inspection sample locations for survey based on ASTM PMP guidelines; this effort replaces the walking field operations; all pavement inspections are

completed in-house through our automated data collection processes. Surveys are quality controlled with field operations.

Our use of MicroPAVER-Tablet units allows our staff to collect pavement data with the City of South Pasadena's MicroPAVER database live in the field. At the end of the day all electronic data is transferred to our office for quality control and management.

Our Tablet methodology sets us apart from the competition since we are using a paper-less inventory process to enter data; this in turn generates cost savings to enhance the project schedule and other portions of the project such as CIP reporting, MicroPAVER training and on-call services.

Roadway Verification Survey - A listing of the field attribute data that is updated/verified during the survey for the pavement management database is listed below:

1. Field Attribute Data (updated and/or verified)
   - From/to, indicating the assigned limits of the section, sample test areas, street name,
   - Street ranking indicating local, arterial, collector, # of lanes, surface type
   - Historical PCI tracking from previous inspections and 2019 PCI inspections
   - Segment quantities, indicating the length, width, and total true area of the section
   - Pavement segment and PCI "Variance" analysis and report
   - ADT volumes (if available from previous reports or current City documents)
2. Conditional data will be evaluated for all street segments and will include:
   - MicroPAVER 20 AC & 19 PCC distresses by type, severity and sample area
   - PCI ratings (0-100), taking into account the surface condition, level of distress
   - Other known or found environmental issues (standing water, inverted crowns, steep streets, etc.)

We welcome staff from the City to join our surveys. All pavement data will be entered into the City's purchased licensed software (version 7); Bucknam will assist with the purchase. If the City elects to not purchase the software Bucknam will utilize their own licensed version of MicroPAVER to complete the project. All items listed above will be maintained by our staff for the duration of this project. Data management will be performed in-house at our Oceanside office.

3. Section Distress and PCI Reporting

Upon 50% and 100% completion of the required condition surveys, we will prepare draft PCI Reports and PCI GIS maps that document the conditions of all pavement segments. This report will provide the necessary information within MicroPAVER for the City to use and manipulate projected street rehabilitation and maintenance projects.

Included in the report will be updated pavement performance curves and maintenance decision models. The City and our staff will review the PCI reports to ensure that all inventory data is correct and the project is running smoothly.

Our Report that will include:

- PCI report - Sorted by Name (A to Z), PCI Order (0-100), Zone (1, 2, 3, etc.)
- Pavement segment and PCI "Variance Report"
- Graphical representation of conditions
- Condition Report Analysis for each segment
- Work history report
- GIS Maps presenting PCI finding by zone and by section

Once the City has reviewed, assessed and commented on the draft report, we will address all comments made and deliver the final reports.

Deliverable: Citywide PCI reports, compliant METRO PCI reports, updated MicroPAVER database

TASK 4.2a: Sidewalk GIS Layer Build / Data Definitions

Over the past month, Bucknam has assessed the City's previous sidewalk GIS data as well as approximated the total sidewalk mileage through GIS. At this time we are approximating that the City has 120 miles of sidewalks defined within its network.

Bucknam will develop/update a clear and accurate citywide Sidewalk GIS layer that represents where known sidewalk locations exist today (polyline based). This work effort will include the assessment and improvement of all existing sidewalk GIS line work. This updated Sidewalk GIS layer will in turn drive our sidewalk inspections.

Our staff will utilize the City's available pavement segmentation data, within the South Pasadena MicroPAVER PMP, to improve upon the sidewalk segmentation, unique sidewalk ID, survey limits and schedule data. Our staff will utilize additional data such as the City's GIS centerline, aerial imagery and other viable data to assist our field operations.

In improving upon the Sidewalk Management Program (SMP) database sidewalk locations will be digitized through ArcGIS Desktop utilizing available aerial imagery, completed street improvement plans and digital roadway imagery. Sidewalk distress data will be collected through the use of mobile GPS hand-held units, providing a XY coordinates for all distress locations. Through the use of our enhanced ESRI GIS Collector units we utilize the data capture screen to record inventory and inspection data defined by this scope of work.

Another essential data collection item to establish prior to survey is what defines sidewalk displacement/trip hazards for potential maintenance and repair. These displacement locations will be categorized with low, medium or high deficiency ratings. These details are shown within Tasks 4.2b & 4.2c.; as stated above, we will meet with City staff to define the final deficiency rating definitions prior to survey.

Also, the City has asked us to identify curb & gutter and ADA wheelchair ramp locations; Bucknam has described these work effort deliverables as part of Task 4.2c.

Deliverable: Definition of South Pasadena Sidewalk Section network, inventory attributes, GIS data integration plan

TASK 4.2b: Development of Sidewalk Maintenance Database

Based on previous sidewalk management programs performed for various cities, this is the list of typical layers and attributes we collect during sidewalk inspections:

Sidewalk Maintenance Distresses GIS Layer

- House Number – House number closest to distress, if applicable;
- Street Name – Street Name;
- Surface Type – i.e. AC, Brick, Paver, PCC;
- Distress Type – i.e. linear cracking, divided slab, buckled Slab;
- Distress Material Location – PCC, C&G, Ramp;
- Height of displacement (Distress Deficiency) – i.e. 0" to ¾ ", ¾ " to 1 ¼ ", 1 ¼ " or higher
    - Deficiency ranges – Defined by City's current Sidewalk Inspection Program (may be changed per discussions with City);
- Sensitive Location – Schools, Parks, City Facilities, etc. Locations to be determined by City Staff;
- Tree – If distress is caused by a tree;
- Utility Box – If utility box is affected by sidewalk distress;
- Slope over 5 : 1 – Yes/No for sidewalk locations over a 5:1 slope ratio;
- Length – Length of distress, if applicable;
- Width – Width of distress, if applicable;
- Area (Sq. Ft) – Area of distress, if applicable;
- Cracks within slab with ½" separation to be noted;
- Construction Site – If distress is on a construction site;
- Recommended Work – i.e. Grind, Ramp, Replace, etc.;
- MicroPAVER ID – Unique ID that corresponds with PMP Street GIS Layer;
- Any hazards or sidewalk damage that may not meet requirements of repair to be noted for future inspections;
- Field notes (if applicable) and inspection date associated with distress priority location;
- Comments – Field for any necessary comments about the distress.

We will finalize each GIS layer's attributes with the City staff before beginning the survey process. Bucknam will deliver all GIS data in the City's preferred GIS format.

Through our experience in working with sidewalk GIS datasets and MicroPAVER we are approaching the development and future management of the South Pasadena sidewalk assessment in the following manner:

- Perform all sidewalk data collection/condition assessment through the use of mobile GPS driven hand-held technologies and personal computers.
    - This creates a real-time, accurate GIS database for each distress location
- Publish collected sidewalk GIS data into the City's existing GIS Enterprise for field use, data analysis, reporting and management

Deliverable: Citywide Sidewalk Maintenance Database

TASK 4.2c: Sidewalk / Curb & Gutter / Ramp Condition Survey

Once the street/pavement segmentation has been assessed and verified, the inspection of approximately 120 miles of sidewalk segments will be performed. Data will be assessed/collected for each preceding year focus grid. Our survey methodology will include the following approach:

- FY 2019/20 – citywide sidewalk survey (120 miles);
    - ❖ Distress data collected will utilize the attributes shown within Task 4.2b

The City has initially identified specific displacement deficiency ranges which are demonstrated below; any recommended changes to the distress rating limits will be discussed prior to survey:

- Rating 1 – (Fair), Locations that have a condition of Fair to Good or where the problem is not a safety hazard
    - o Typically trip, separation, spalling,, raised/depressed slab distress areas that are 0" to ¾ " in occurrence;
- Rating 2 – (Poor), Locations that have a condition of Poor or any location which the field technician considers to be an immediate serious safety concern
    - o Typically trip, separation, spalling, raised/depressed slab distress areas that are ¾ " to 1 ¼ " in occurrence;
- Rating 3 – (Very Poor), Locations that have a condition of Very Poor or where the field technician determines that a problem is not an immediate safety concern
    - o Typically trip, separation, spalling, raised/depressed slab distress areas that are 1 ¼ " or greater in occurrence;
- Rating 4– for "vicinity of a sensitive location" (i.e. schools, churches, hospitals, senior housing, city facilities, parks, commercial centers, etc.) where pedestrian traffic is high and the City has a vested interest in lowering tripping hazards.
    - o Rating can be given for any deficiency location; this places priority onto the location needing repair due to the pedestrian activity at the site.

Our use of mobile GPS Handheld/Tablet units allows our staff to collect sidewalk data with the City of South Pasadena's database live in the field. At the end of the day all electronic data is transferred to our office for quality control and management. We can produce Sidewalk GIS Distress locations at any time during the survey for City QC and/or review.

Section Distress and Condition Reporting

At 30%, 60% and 100% Bucknam will generate Sidewalk Distress Reports for City staff review. The City and our staff will review these reports to ensure that all inventory data is correct and the project is running smoothly.

Sidewalk spreadsheet reports and GIS maps will include:

- Identification of all street segments in a continuous manner (W to E and S to N);
- Sidewalk locations identified within street segments;
- GIS maps identifying sidewalk displacement locations;

- A Sidewalk M&R recommendation map

Deliverable: Citywide Sidewalk Distress Reports (30%, 60% and 100% status reports); Recommended repairs; GIS Distress/Deficiency maps.

TASK 4.3: Maintenance & CIP/Budgetary Analysis

We will assist the City in developing the most cost-effective preventative maintenance, repair and rehabilitation strategies possible. This will be accomplished by meeting with the City to discuss and strategize maintenance activities that are currently being used by the City.

Based on the City's current AC & PCC applications, Geotech reports and other maintenance practices used we will conduct an historical and prospective analysis on the conditional and financial impact these practices have on the pavement network. Based on our fiscal and deterioration analysis, we will present our results and recommendations to City staff. This analysis will become an essential building block for the projected five-year CIP/maintenance programs.

We will establish/update a maintenance "decision tree" that will be used to generate pavement recommendations that match current fiscal year maintenance approaches/City practices.

This will be accomplished by assessing/updating the unique and individual PCI ranges and deterioration curves within MicroPAVER based on functional class (i.e. arterial, collector, local) and age. Our staff will review the South Pasadena's deterioration curves that have been developed based on historical pavement condition, inspection, surface type, and road class. The curves will be modified based on current pavement conditions.

The strategies that are typically reviewed are rehabilitation and reconstruction (R&R), localized maintenance, slurry seals, and various overlay types, the expected improvement in pavement condition, the life-cycle extension that would result and the unit costs for maintenance.

All maintenance practices/unit costs will be integrated into MicroPAVER and will be derived from the most recent construction bids for pavement rehabilitation. We will account for inflation rates when long-term revenues projections are made. Our Project Manager and Principal will work closely with City in defining repair and rehabilitation strategies during each fiscal year and within each Zone defined by the City. Once the repair/rehabilitation strategies have been defined, the identification of a five year Forecasted Maintenance schedule will be generated.

The recommended budget scenarios will be identified on the basis of several criteria:

- Assessment and review of the City's Pavement CIP
- Present pavement conditions; Desired levels of service and available resources
- Projected / Forecasted PCI's per section
- Cost benefit of individual strategies (e.g. maintain PCI in 5-years, etc.)
- Scheduling with the City's major CIP projects (water, sewer, etc.)
- Budgetary recommendations that satisfy METRO guidelines
- Future routine maintenance needs based on projected deterioration rates

The primary emphasis of this task is to maximize the scheduling of street maintenance using the most cost-effective strategies available and taking into account a life-cycle cost analysis.

A working "draft" Final Report will be generated for City staff to review. The report will include an executive summary, the PCI Report as well as draft budgetary findings and recommendations.

Deliverable: Two copies of the Draft Pavement Management Program Report

TASK 4.4: Citywide CIP / METRO Compliance Reports

We will deliver the Final Report to the City which will be essential for staff reference and use as well as presented in a way that is beneficial for elected officials/upper management. This report will assist the City in complying with METRO.

The report will be prepared in a format that uses the information delivered by MicroPAVER in conjunction with the information and analysis performed by our team. The report will provide the City with information on:

- Current inventory and pavement conditions indices (PCI) for all road classes
- Projected annual rehabilitation programs for street maintenance for a 5-yr period (ARTERIAL and LOCAL Forecast Maintenance Reports) that show the largest return on investment and acceptable levels of service;
- Modeling and comparison of budget scenarios typically include:
  - Current / Actual budget 5-year projection (citywide approach)
  - Identification of annual funding to maintain current PCI after 5-years
  - Increase current PCI within 5-years
  - Gradual, Frontloaded, Constrained and Unlimited funding analysis
- Strategies and recommendations for the City's maintenance programs and procedures, including a preventative maintenance schedule;
- Supporting documentation required by METRO; and
- A detailed breakdown of deferred maintenance (backlog).

We will make a presentation of the results from the 2019 PMP update to City personal and/or City Council if necessary-pro bono.

Registered Engineer: Mr. Steve Bucknam, P.E. will supervise all operations, review all completed data and prepare and sign a final report incorporating the results of our pavement evaluation and conditions. We will provide engineered recommendations for pavement rehabilitation and replacement design based upon field data and analysis.

Deliverable: Three (3) bound copies of the Final Pavement PMP Report (plus one original signed by our Registered Engineer, CA No. 20903), in binder and electronic form (.pdf), will be sent to the City. Bucknam will provide one (1) DVD copy that includes all final reporting documents, MicroPAVER .e70 PMP database and GIS files.

TASK 4.5: PMP Mapping and GIS Update

As an enhancement and proactive approach to this project, our staff will update and publish a Pavement-GIS link between MicroPAVER data and the City's GIS system. Bucknam will utilize the City's existing PMP-GIS shapefile (in-hand) as a starting point for updating the layer. By using the unique segment ID's within the PMP and the City's ESRI street shapefile ID's, we will update/verify a one-to-one match for each pavement section in the GIS. All pavement segmentation within the PMP database will be mirrored within the South Pasadena GIS layer which will allow all pavement data to be published on the GIS layer.

With a completed survey and we will update the PMP-GIS layer with all final PCI data.

The maps described below will be incorporated into the City's Final PMP report:

- PCI values for every section;
- Work History identifications;
- 5-yr Arterial / Local Rehabilitation and Slurry Seal Programs; and
- Functional classification maps

Our staff will coordinate all project deliveries with the Public Works and the GIS division to ensure that the most current and accurate PMP-GIS maps are represented within the City's GIS enterprise/ArcGIS Online/Google Earth (.kmz). Sample 2019 South Pasadena-GIS PMP map below.

Deliverable: Complete ESRI GIS files/.kmz format, themes based on list above (shapefiles)

4) Scope of Work (Asset Management Information System - Major Tasks)

Our firm specializes in turn-key Public Works GIS integration and publications utilizing existing GIS Enterprise sources available at the City as well as management enhancements that track and provided valuable Operation & Maintenance data (i.e. streets, Water, Sewer, Signs, etc.). Bucknam will serve as the "go-to" GIS staff for the City's Public Works and will champion the assessment, recommendation and implementation of the following GIS services:

- Phase I – Assessment of Available GIS data;
  - Preparation of Asset Management Information System (AMIS) memorandum;
  - City Review and Approval of AMIS;
  - Publication of cloud-based GIS Management tool (ArcGIS Online)
  - GIS staff augmentation (on-site and off-site)
- Phase II (Technical Support) - Core GIS Annual Updates (Public Works Department);
- Phase II (Optional) - Special GIS Projects (Public Works Department, as-needed projects);

TASK 4.6: Implementation of AMIS – GIS (Phase I)

As more and more local agencies rely on digital GIS "go-to" sources, the City has recognized the need to establish a common-sense, effective Asset Management Information System (AMIS) Program within Public Works. Due to availability and low-cost GIS options that are available today for implementing a Public Works department GIS Program, we have described below our

proven and successful approach that will allow South Pasadena staff to access, query and manage your infrastructure assets, records and maps through ESRI ArcGIS Online.

Recognizing that the GIS system is critical to day-to-day operations within the City and its Public Works department, an initial assessment of available City and County GIS data is needed. Initially, Bucknam will gather all available GIS data (streets, water, etc.) and identify various GIS "data needs" (i.e. traffic signals, street lights) that are to be published within the AMIS. These assets will include:

South Pasadena Asset Data Collection	
Pavement Management	Storm Drain System*
Water Infrastructre and SCADA	Traffic Signals & System*
Sewer Infrastructure	City Owned Street Lights*
Street Signs / Traffic Control markings / Traffic Data	Street Trees
** indicates that no GIS-based data is available from City*	

Deliverable: The results of our review of available South Pasadena GIS data, software and management methodologies will be the preparation of a AMIS technical memorandum that will provide the City with the following:

- Identification of all available South Pasadena GIS data (sourced by the City and/or County)
- General findings regarding data quality, quantity, usefulness and application;
- Recommendations for the AMIS cloud-based GIS program;
- Data schema and server side file network mapping; and
- Operations & Maintenance of AMIS program / annual support

With City's approval of the technical memorandum implementation goals combined with our experience of executing turn-key GIS solutions for local agencies, Bucknam will identify and publish all viable and essential Public Works GIS data to ArcGIS Online.

TASK 4.7: Publication of AMIS – GIS & Training (Phase I)

With the approval of the City GIS project management team, Bucknam will initiate the GIS Management efforts to implement and oversee the South Pasadena GIS (SPGIS). This will include the implementation of the City's purchased ESRI ArcGIS Online software. This integration will allow the City to immediately access all existing GIS data stored and maintained by the City's Public Works department as well as other known GIS layers (i.e. available County of Los Angeles GIS data such as Parcels, Planning, city boundary, street centerline, aerial imaging, etc.).

Bucknam staff will assist in the importing of this data and create a live, internal GIS web service through ArcGIS Online that will grant Public Works staff (and other key departments) access to GIS. These services will be considered Phase I of the project and will allow staff to begin using viable GIS Public Works data that exists today.

Deliverable: ESRI ArcGIS Online software and training documentation

TASK 4.8: MicroPAVER PMP / AMIS-GIS Training

PMP Training

With PMP software use being one of the key components to a successful PMP implementation, we will provide City staff with quality, certified training and the necessary skills needed to maintain the PMP. Bucknam will provide City staff with all collected pavement/GIS data, as well as updated operation manuals for both field data collection and software use. Based on the number of future users, our staff will deliver as many copies as needed by City staff to facilitate the program. Peter Bucknam, who is certified in the use of MicroPAVER, will conduct comprehensive training sessions covering PMP implementation, PMP methodologies, field survey practices, PCI calculations, editing/updating the database, budget needs analysis, and how to publish PMP data to GIS/Google Earth. This is estimated to consist of a minimum of 8 hours of training.

Training typically involves one (1) day of training on the PMP software and GIS linkages. There is no minimum or maximum amount of people that can be trained under this methodology. We can train one key individual or an entire classroom using a City training facility pending on your needs; the intent of this training is to empower and allow City staff to continue updating the PMP database on their own after this project is completed.

AMIS – GIS Training

With the integration of ESRI ArcGIS Online supporting the City's Asset Management Information System goals, Bucknam staff will establish training sessions to demonstrate, educate and integrate the new GIS interface management tool. Our AMIS – GIS training will include accessing the South Pasadena ArcGIS Online map galleries, tutorial guide, data schema location/management, Public Works GIS data access (Streets, Water, Sewer, etc.) and operations & maintenance practices.

Bucknam will schedule a final review meeting with City staff to ensure that all technical services are working and staff has a solid understanding of the GIS user-interface. From there Phase II GIS services will be discussed. Phase II services will include the identification of annual operation & maintenance "core" projects for the remainder of the 2019-20 calendar period. AMIS technical support will include 40 hours for the remainder of the FY 2019-20.

Phase II GIS Support Services

An annual need has been identified to implement a GIS management team to champion and ensure GIS projects are efficiently managed (GIS Operations & Management) once the program is up and running. This is essential to achieving short-term goals and establishing the long-term success of the South Pasadena Geographic Information System (SPGIS).

Project priority and delivery are also essential to this success in the coming years. With Bucknam Infrastructure Group, Inc. (Bucknam) staff working onsite and through remote VPN access we will immediately be able to assess ongoing GIS projects (internal and with outside consultants), implement solutions to known short-term GIS needs and manage long-term GIS priorities.

With a Public Works/citywide understanding gained from assessing these priorities, Bucknam will serve as the go-to GIS management team for the remainder of the 2019-20 fiscal year. We will facilitate numerous GIS Operations and Maintenance projects for the GGIS Program.

Our efforts will include:

- Assessment and Qualification of GIS Data for ArcGIS Online use;
- GIS staff augmentation – ArcGIS Online management;
- Updates to Phase I GIS Data layers
  - Core GIS Annual Updates (Public Works Department);
- Quarterly Department GIS meetings – Action Item deliverables/notes
- Optional Special GIS Services

This methodology will create a "go-to" GIS staff that will support the Public Works department with quarterly GIS tasks, on-site services, annual core GIS projects and as-needed "special" GIS project support. Having Bucknam staff available to serve as an extension of Public Works GIS staff will enhance data accuracy, availability, communication between departments, scheduling of future GIS projects, GIS budget development and GIS deliverable requirements for internal and external project data. The quantity of these services will depend on the City's annual GIS priorities and available GIS budgets.

Bucknam will be providing their own hardware and software during this effort; only a work station (office) and access to the City's ArcGIS Online service will be required from the City. Bucknam will work with Ms. Kristine Courdy to ensure that our on-site hardware and software have the necessary and secure access to the City's file network and data. Bucknam will also work with South Pasadena IT staff regarding off-site, internet VPN remote access to the GGIS data and GIS Enterprise files as well as on-site setup.

TASK 4.9: South Pasadena My Roads PMP Web-Portal

South Pasadena My Roads Web-Portal - Bucknam now provides all our MicroPAVER clients with a unique and agency driven "My Roads" web-portal that provides instantaneous access to your MicroPAVER database. This "dashboard" allows users to toggle through individual sections via GIS mapping or queries, zone selection, rank selection, etc. to review all section metrics, latest/previous inspections, work histories generate filtered PCI reports and identify potential maintenance costs based upon your unique needs.

Bucknam has shown above the current "My Roads" actively working! This tool will be accessed by City staff simply through a Username/Password methodology. As changes are made to the South Pasadena MicroPAVER database the My Roads dataset is immediately changed to reflect work history edits, PCI inspections and section changes.

In summary, My Roads allows the user perform the following dynamic functions:

- Query for a specific pavement segment to view its inspection PCI, work history and inspection history on one dashboard;
- Filter for pavement sections within a defined zone, PCI range and/or functional class;
- Select a pavement section or grouping of section through the on-board GIS tool.

Deliverable: My Roads PMP Web-Portal

Exhibit B

Approved Fee Schedule

Below is the approved fee schedule for the scope of services:

Task	Description	Principal	Project Manager	GIS Analyst	Field Tech(s)	Admin	Total by Task
	2019 Base Fee	$295/hr	$185/hr	$145/hr	$92/hr	$80/hr	
Task 1	**Project Implementation**						
Task 1.1	Project Kickoff		1				$185
Task 1.2	Project Status Meetings - Quality Control	1	2	1	8		$1,546
Task 2	**Client Satisfaction**						
Task 2.1	Project Deliverables		2			1	$450
Task 3	**Project Schedule**						
Task 3.1	Work Flow / Project Schedule		2		4		$738
Task 4	**Scope of Work**						
Task 4.1	South Pasadena PMP Implementation / Update Work History		1		6		$737
Task 4.1	Purchase of MicroPAVER						$1,170
Task 4.2	Pavement Condition Survey (approx.70 miles)		3	2	98		$9,861
Task 4.2a	Sidewalk GIS Layer Build		3	6	60		$6,945
Task 4.2b	Development of Sidewalk Maintenance Database		2	8	8		$2,266
Task 4.2c	Sidewalk/C&G/Ramp Condition Survey (approx. 120 miles)		4	4	160		$16,040
Task 4.3	Maintenance & CIP / Budgetary Analysis		4				$740
Task 4.4	Citywide CIP / METRO Compliance Reports	1	24	4		1	$5,395
Task 4.5	PMP Mapping and GIS Update		2	4	8		$1,686
Task 4.6	Implementation of AMIS-GIS (Phase I)	1	10	12	10		$4,805
Task 4.7	Publication of AMIS-GIS (Phase I)		4	28	14		$6,088
Task 4.8	MicroPAVER PMP / AMIS-GIS Training		2	8	8		$2,266
Task 4.9	South Pasadena My Roads PMP Web-Portal						$1,750
	Purchase of ESRI ArcGIS Online						$2,875
	Reimbursable (mileage, printing, materials)						$2,457
	Total Hours per Staff	**3**	**66**	**77**	**384**	**2**	
	2019 Total Base Fee	***$ 885***	***$ 12,210***	***$ 11,165***	***$ 35,328***	***$ 160***	***$68,000***

Below are the hourly rates for the Consultant Services:

Category	**Rate**
Principal	$295
Senior Project Manager	$215
Senior Engineer / Planner	$195
Construction Manager	$190
Pavement Management Project Manager	$185
Management Analyst	$165
Project Engineer / Planner	$160
Engineer / Senior Technician / Sr. GIS Analyst / Senior Inspector	$145
Assistant Engineer / GIS Analyst / Inspector	$135
CADD Operator	$110
Administrative Assistant	$100
Field Technician	$92
Clerical / Word Processing	$80
Forensic Services	Quote
Reimbursables	
Mileage	$ 0.67/mile
Subconsultant Services	Cost + 15%
Reproduction	Cost + 15%
Travel & Subsistence	Cost + 15%
Fees & Permits	Cost + 15%
Computer Services (External)	Cost + 15%

City Council Agenda Report

ITEM NO. 17

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Shahid Abbas, P.E., Public Works Director
Alex Chou, Associate Civil Engineer

SUBJECT: **Approve Cooperative Agreement with City of Alhambra for Street Rehabilitation of Pine Street Between Atlantic Boulevard and Huntington Drive in an Amount Not-to-Exceed $119,116**

Recommended Action

It is recommended that the City Council:

1. Enter into a cooperative agreement (Agreement) with the City of Alhambra to share the construction cost for the street rehabilitation on Pine Street from Atlantic Boulevard to Huntington Drive in an amount not-to-exceed $119,116; and
2. Authorized the City Manager to execute the agreement and any other related documents.

Commission Review and Recommendation

This street was identified and reviewed by the Public Works Commission and included on Fiscal Year (FY) 2018-19 Street Improvement Project List.

Discussion/Analysis

In 2017, the City of Alhambra contacted the City of South Pasadena (City) to solicit cost sharing plan for the street rehabilitation on Pine Street from Atlantic Boulevard to Huntington Drive. The City of Alhambra will take the lead on development of construction plans, project specifications, and project administration. It is prudent for the City to coordinate with the City of Alhambra for the benefits of cost savings on design services, construction management and inspection services, and reduce staff project management overheads. Hence, this project was recommended to be included in the FY 2018-19 Budget.

This Project was adopted in FY 2018-19 Budget in the amount of $60,000 as a share cost based on preliminary engineer estimate. However the condition of Pine Street was formally evaluated and determined that the street required full depth reconstruction pavement instead of grind and overlay by the initial assessment.

Staff has reviewed the bid proposal received by the City of Alhambra and determined that the cost sharing is reasonable at current construction costs. This Agreement proposes to share the

construction cost between two cities for the asphalt pavement work on Pine Street from Atlantic Boulevard to Huntington Drive. During the course of construction, the City of Alhambra will provide inspection and construction management services at no cost to the City. Therefore, staff is recommending approval for the City to enter the Agreement with the City of Alhambra.

Background
Pine Street from Atlantic Boulevard to Huntington Drive is classified as a Collector street. Pine Street centerline is a dividing boundary line between the City of Alhambra and City of South Pasadena. The street condition is rated at 36 Pavement Condition Index (PCI). Any PCI rated below 40 is considered as a very poor pavement condition and street rehabilitation is badly needed.

The scope of work consists of remove existing pavement and reconstruction of full asphalt pavement over the entire roadway, utility adjustments, and restores pavement striping and markings.

Legal Review
The City Attorney has reviewed this item.

Fiscal Impact
This Project is funded from Senate Bill No. 1 (SB1) Account No. 237-9000-9000. There are sufficient funds available in SB1 funds for the Project.

Environmental Analysis
This Project is exempt from any California Environmental Quality Act (CEQA) analysis based on State CEQA Guidelines Section requirements under Section 21084 of the Public Resources Code, in accordance with Article 19, Section 15301, Class (1) "existing facilities."

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachments:
1. Agreement
2. Location Map

COOPERATIVE AGREEMENT
BETWEEN THE CITY OF ALHAMBRA AND THE CITY OF SOUTH PASADENA
FOR STREET REHABILITATION OF PINE STREET
BETWEEN ATLANTIC BOULEVARD AND HUNTINGTON DRIVE

THIS AGREEMENT ("AGREEMENT") is made and entered into this _____ day of _____, 2019, by and between the CITY OF ALHAMBRA ("ALHAMBRA"), a municipal corporation, and the CITY OF SOUTH PASADENA ("SOUTH PASADENA"), a municipal corporation. ALHAMBRA and SOUTH PASADENA may hereinafter be referred to collectively as "PARTIES".

RECITALS

1. The PARTIES have evaluated the street rehabilitation of Pine Street between Atlantic Boulevard and Huntington Drive (the "PROJECT").

2. Pine Street, south of the centerline; mainly the eastbound lanes of the roadway are located in ALHAMBRA; the roadway north of the centerline along Pine Street is located within SOUTH PASADENA. Construction plans of the proposed PROJECT in this area including the respective jurisdictional boundaries of ALHAMBRA and SOUTH PASADENA are attached as Exhibit A to this AGREEMENT.

3. ALHAMBRA desires to partner with SOUTH PASADENA to complete the PROJECT.

4. ALHAMBRA and SOUTH PASADENA desire to set forth responsibilities and obligations of the PARTIES as pertains to participation in the PROJECT.

IT IS HEREBY AGREED AS FOLLOWS:

ALHAMBRA AGREES TO:

1. Act as the Lead Agency in the design and construction of the PROJECT.

2. Provide plans, specifications and all necessary engineering for the PROJECT.

3. Advertise, award, and administer the PROJECT contract in accordance with the Public Contract Code, and any applicable federal and state laws, and ALHAMBRA policies and procedures.

4. Provide reasonable inspection of the work performed under the contract(s) for the PROJECT and maintain complete records of inspection. ALHAMBRA shall provide records of inspection upon request by SOUTH PASADENA.

5. Communicate with SOUTH PASADENA in a timely manner regarding PROJECT-related issues such as schedule, delays, cost or design changes.

6. Prepare and submit invoice(s) to SOUTH PASADENA for reimbursement of costs and expenditures for the PROJECT. Invoice shall include an itemized accounting of actual PROJECT costs.

SOUTH PASADENA AGREES TO:

1. Reimburse ALHAMBRA for the actual cost of construction of the PROJECT within city of SOUTH PASADENA boundaries. The estimate for the PROJECT cost for SOUTH PASADENA's share of the construction is $119,115.25.

2. Tender payments to ALHAMBRA within thirty (30) days of receipt of invoice(s) from ALHAMBRA.

3. Cooperate with ALHAMBRA and the PROJECT contractor concerning execution of the work, including but not limited to issuance of a "no fee" encroachment permit, schedule coordination, review of traffic control plans, and notices to adjoining property owners.

GENERAL:

1. This AGREEMENT shall be in effect as of the date first written above and shall remain in effect until the terms contained herein are completed or otherwise amended.

2. This AGREEMENT constitutes the entire understanding and agreement of the PARTIES, and supersedes all negotiations or previous agreements between the PARTIES with respect to all or part of the subject matter hereof.

3. This AGREEMENT may be amended in writing at any time by the mutual consent of the PARTIES. No amendment shall have any force or effect unless executed in writing by both PARTIES.

4. If any term, provision, covenant, or condition of this AGREEMENT is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions of the AGREEMENT shall continue in full force and effect, unless both PARTIES would be materially altered or abridged by such interpretation.

5. This AGREEMENT shall be construed and enforced in accordance with the laws of the State of California.

6. Except as set forth herein, no PARTY shall assign or otherwise transfer this AGREEMENT or its right of interest or any part thereof to any third party without the prior written consent of the other PARTY. Such consent shall not be unreasonably withheld. No assignment of this AGREEMENT shall relieve the assigning PARTY of its obligations until such obligations have been assumed in writing by the assignee. When duly assigned in accordance with the foregoing, this AGREEMENT shall be binding upon and inure to the benefit of the assignee.

7. Indemnification:

A ALHAMBRA releases and shall defend, indemnify and hold SOUTH PASADENA harmless from all claims, losses, harm, liabilities, damages, costs and expenses caused by or arising out of any negligent act or omission or willful misconduct of ALHAMBRA and its employees, agents and contractors in their performance under this AGREEMENT or occurring within that portion of the PROJECT area (Pine Street between Atlantic Boulevard and Huntington Drive) within the jurisdictional boundaries of ALHAMBRA.

B. SOUTH PASADENA releases and shall defend, indemnify and hold ALHAMBRA harmless from all claims, losses, harm, liabilities, damages, costs and expenses caused by or arising out of any negligent act or omission or willful misconduct of SOUTH PASADENA and its employees, agents and contractors in their performance under this AGREEMENT or occurring within that portion of the PROJECT area (Pine Street between Atlantic Boulevard and Huntington Drive) within the jurisdictional boundaries of SOUTH PASADENA.

8. Every notice, demand, request, or other document or instrument delivered pursuant to this AGREEMENT shall be in writing, and shall be either sent via U.S. Mail or email to the addresses set forth below, or to such other address as a party may designate from time to time:

To SOUTH PASADENA: City of South Pasadena
1414 Mission Street,
South Pasadena, CA 91030

To ALHAMBRA: City of Alhambra
111 South First Street,
Alhambra, CA 91801
Attn: Martin Ray, Director of Public Works & Utilities
Telephone: (626) 570-5067
Fax: (626) 282-5833
Email: mray@cityofalhambra.org

9. This Agreement shall terminate upon issuance of a notice of completion of the PROJECT by ALHAMBRA and payment of final billing by SOUTH PASADENA for its share of the PROJECT.

IN WITNESS WHEREOF, the PARTIES to these presents have hereunto set their hands.

CITY OF SOUTH PASADENA	CITY OF ALHAMBRA
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____
ATTEST:	ATTEST:
_____ City Clerk	_____ City Clerk
APPROVED AS TO FORM:	APPROVED AS TO FORM:
_____ City Attorney	_____ City Attorney
Date: _____	Date: _____

City Council Agenda Report

ITEM NO. 18

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Shahid Abbas, Director of Public Works
Julian Lee, Deputy Director of Public Works

SUBJECT: **Award of Contract for the Preparation of Integrated Water and Wastewater Resources Management Plan to Carollo Engineers, Inc. for a Total Not-to-Exceed Amount of $579,395 for a Period of Two Years**

Recommendation

It is recommended that the City Council:

1. Accept a proposal dated September 30, 2019 from Carollo Engineers, Inc. (Carollo) for the preparation of Integrated Water and Wastewater Resources Management Plan; and
2. Authorize the City Manager to execute the agreements and any amendments with Carollo for a not-to-exceed amount of $579,395 ($526,723 for the proposal amount and $52,672 for 10% contingency); and
3. Reject all other proposals received.

Discussion/Analysis

The City of South Pasadena's (City's) Integrated Water and Wastewater Resources Management Plan (Integrated Water and Wastewater Plan) will evaluate the City's various water resources and will identify short and long-term water and sewer management and operation strategies to meet the existing and future demand and associated infrastructure needs.

The Integrated Water and Wastewater Plan is comprised of two parts: water and sewer. While the City already has the Sewer System Management Plan (SSMP), the SSMP requires a comprehensive update after recent significant sewer system upgrade. This is the first time the City will combine several utilities plans into one master plan that will identify strategies and goals for next 50 years.

The completed Integrated Water and Wastewater Plan also include following:

- Detailed condition assessment of existing water and sewer infrastructures.
- Identify demand, capacity, and infrastructure needs for next 50 years.
- Operational and Maintenance (O&M) planning for water, sewer and stormwater systems.
- 10-year Capital Improvement Project (CIP) programs for the City's utility systems.
- Feasibility of potential recycled water system in the City.
- Potential stormwater projects within the City and in the region.
- Financial planning including possible funding sources for the both O&M and CIP programs.

On September 30, 2019 the proposals were received from two engineering firms: Carollo Engineers, Inc. and Dudek. Two firms were interviewed by the evaluation panel on October 10, 2019. Based on the review of the proposals and the interview conducted, Carollo provided the most optimal plan and interview presentation with qualified technical knowledge, relevant team experiences, and in-depth understanding of the scope of work and project requirements.

Background
The City is a full-service city, with several existing utilities services including potable water, sewer collection, and stormwater drainage systems. Currently, the City does not have recycled water system but its feasibility will be evaluated as part of the Integrated Water and Wastewater Plan should the recycle water becomes available to the City. Details of existing utilities are given below:

- The City's water distribution system consists of approximately 79 miles of transmission and distribution water pipelines. The water system comprises four groundwater wells, five storage reservoirs, 2 elevated tanks, and six booster pumping stations, which provide water service to approximately 6,200 connections in five pressure zones. The City has historically used approximately 4,400 Acre Feet of water per year; however, due to recent water conservation effort, the City now pumps approximately 3,500 Acre Feet per Year.

- The City's sewer collection system consists of approximately 58 miles of sewer pipe lines. Of the pipe lines, nearly 90% are 8-inch diameter Vitrified Clay Pipe (VCP), and the remaining are Polyvinyl Chloride (PVC) pipes of various sizes. The City has three sewer lift stations at the Arroyo South Park, at the Mission Meridian Parking Garage, and at the Arroyo Seco Golf Course.

- The City's existing stormwater drainage system is maintained by both the City and the Los Angeles County Flood Control District (LACFCD). Rainfalls, urban runoffs, and surface flow from upstream areas, are generally collected and conveyed through a network of streets, catch basins and drainage pipes, ultimately making their way to the various Receiving Water Bodies (RWB).

- The City does not have any recycled water system, whereas Upper San Gabriel Municipal Water District (USGMWD) is the recycled water wholesaler in the area and is proceeding with its Indirect Reuse Replenishment Project (IRRP), which continues to expand its recycled water system for direct non-potable use as well as for supplemental groundwater recharge. Upon completion, direct recycled water use will be available to certain areas in the San Gabriel Valley. The timeline of the recycled water availability to the City is still uncertain.

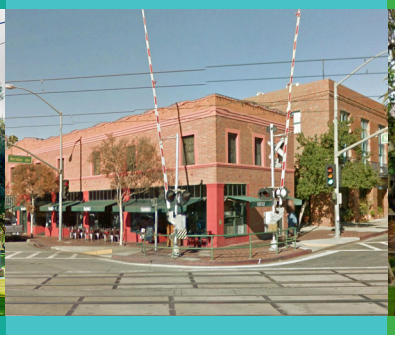
Legal Review
The City Attorney has reviewed this item.

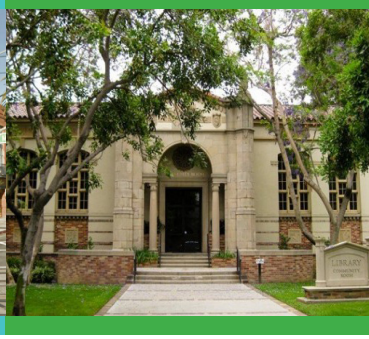
Fiscal Impact
The Fiscal Year (FY) 2019-20 Budget adopted by the City Council includes funding for the preparation of IWWMP in Water CIP (500-9000-9000-9000) and Sewer CIP (210-9000-9000-9000) Accounts.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachments:
1. Proposal from Carollo Engineers, Inc.

CITY OF
SOUTH
PASADENA





PROPOSAL FOR THE PREPARATION OF

INTEGRATED WATER AND WASTEWATER RESOURCES MANAGEMENT PLAN (IWWRMP)

RFP #201908-02 | SEPTEMBER 2019

carollo

Engineers...Working Wonders With Water®

Engineers...Working Wonders With Water®

707 Wilshire Boulevard, Suite 3920, Los Angeles, California 90017
P. 213.489.1587 F. 213.572.0361

September 30, 2019

Julian Lee, Deputy Public Works Director
City of South Pasadena
Public Works Department
1414 Mission Street
South Pasadena, CA 91030

Subject: Proposal for Preparation of an Integrated Water and Wastewater Resources Management Plan

Dear Mr. Lee:

This Integrated Water and Wastewater Resources Master Plan (IWWRMP) will provide strategic guidance and justification for future system improvements for the City of South Pasadena (City). As demonstrated in our proposal, Carollo d has compiled a team that is a direct match with your project needs. We are available to be dedicated to your IWWRMP and bring the following benefits to South Pasadena:

The Right Balance of Local Knowledge and a Fresh Perspective. Our team brings in-depth knowledge of the City's water system from the hydraulic modeling work that some of our team members have worked on since 2012, as well as the regional opportunities from our work with neighboring agencies. As a matter of fact, our proposed project manager, Inge Wiersema, is a long-time resident of South Pasadena and is intimately familiar with the City's entire service area. However, it is also important to bring a set of fresh eyes to the table as this triggers the necessary questions to deliver comprehensive plan. Carollo is the team that delivers this balance!

Integrated "One Water" Planning Approach to Deliver a Holistic Roadmap for the Future. Carollo's team brings unmatched experience in integrated master planning and has established a national reputation as the One Water leader in the water sector. This experience results in a more efficient development of your IWWRMP because we understand the benefits and critical coordination points between the water, recycled water, wastewater, and stormwater planning elements. The end result is a consistent and sound plan that provides a holistic roadmap for both near- and long-term system improvements that can be justified to City Council for implementation.

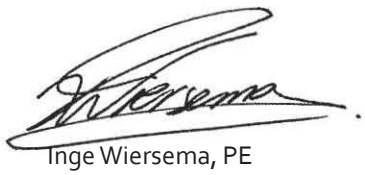
Dedicated Team from Start to Finish! Carollo brings the breadth and depth of resources to deliver master planning projects with a master planning group of more than 50 professionals. Our team has been assembled based on relevant past experience for the City and pertinent regional agencies to minimize learning curve and hit the ground running. Having just completed three large master planning projects, our team is available to be dedicated to your IWWRMP from start to finish and deliver the Final Plan by November 2020.

We look forward to working with City staff to develop the IWWRMP that will be used to make important decisions for all water-related services. We want to thank you for the opportunity to submit our proposal and look forward to continuing our working relationship with the City. If you have any questions about this proposal, please contact Inge Wiersema at 626-393-7427 or IWiersema@carollo.com.

Sincerely,

CAROLLO ENGINEERS, INC.

Gil F. Crozes, PhD
Senior Vice President/Principal-in-Charge



Inge Wiersema, PE
Vice President/Project Manager

Enclosures: 5 hard copy proposals
1 electronic copy

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Background

FIRM OVERVIEW

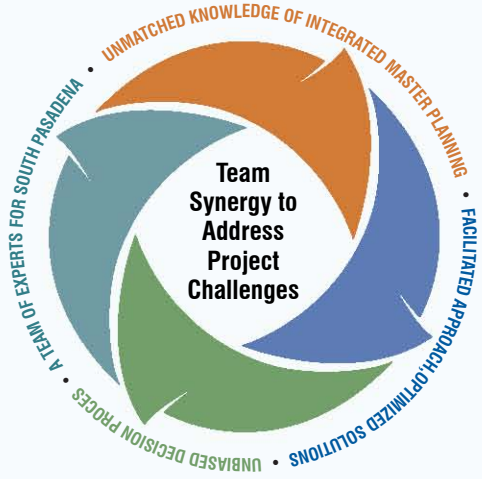
Carollo Engineers, Inc. (Carollo) is a full-service, environmental engineering firm that has been exclusively providing water and wastewater services across the United States for 86 years. Unlike our competitors, we only provide water-related engineering services. In fact, with a staff of more than 1,000 professionals located in 45 offices across the nation, we are the largest firm in the country that is 100 percent focused on water-engineering solutions. Our exclusive focus on water attracts water industry leaders who have a passion for water and the expertise required to solve our most pressing water challenges.

Capabilities and Planning Expertise

Carollo is an industry leader in the development of award-winning, comprehensive master plans for water and wastewater agencies facing a variety of complex issues. Master planning efforts have been an integral aspect of Carollo's experience throughout the company's history. In the past 15 years alone, we have provided planning services for more than 500 municipal clients with service area populations ranging from 5,000 to more than four million. This includes more than 100 wastewater treatment facilities, more than 100 water treatment facilities, more than 100 recycled water facilities, and extensive water distribution and wastewater collection systems.

We have also assisted many of our clients with subsequent rate studies and prepared presentations/attended many city council and board meetings to assist with the stakeholder outreach, public acceptance, and adoption process of the master plans.

Our professionals provide cost-effective solutions that utilize existing facilities to the greatest possible extent, and limit treatment alternatives and capital expenditures to the most reliable and easy to implement options.



WHY CAROLLO?

A Proven Team with a Long History of successful integrated master planning projects throughout California and the United States.

A Partner-Focused, Facilitated Approach that brings everyone to the table and balances the many needs of the City to provide optimized solutions.

Integrated Master Planning Experts with a broad range of technical know-how related to all facets of the project.

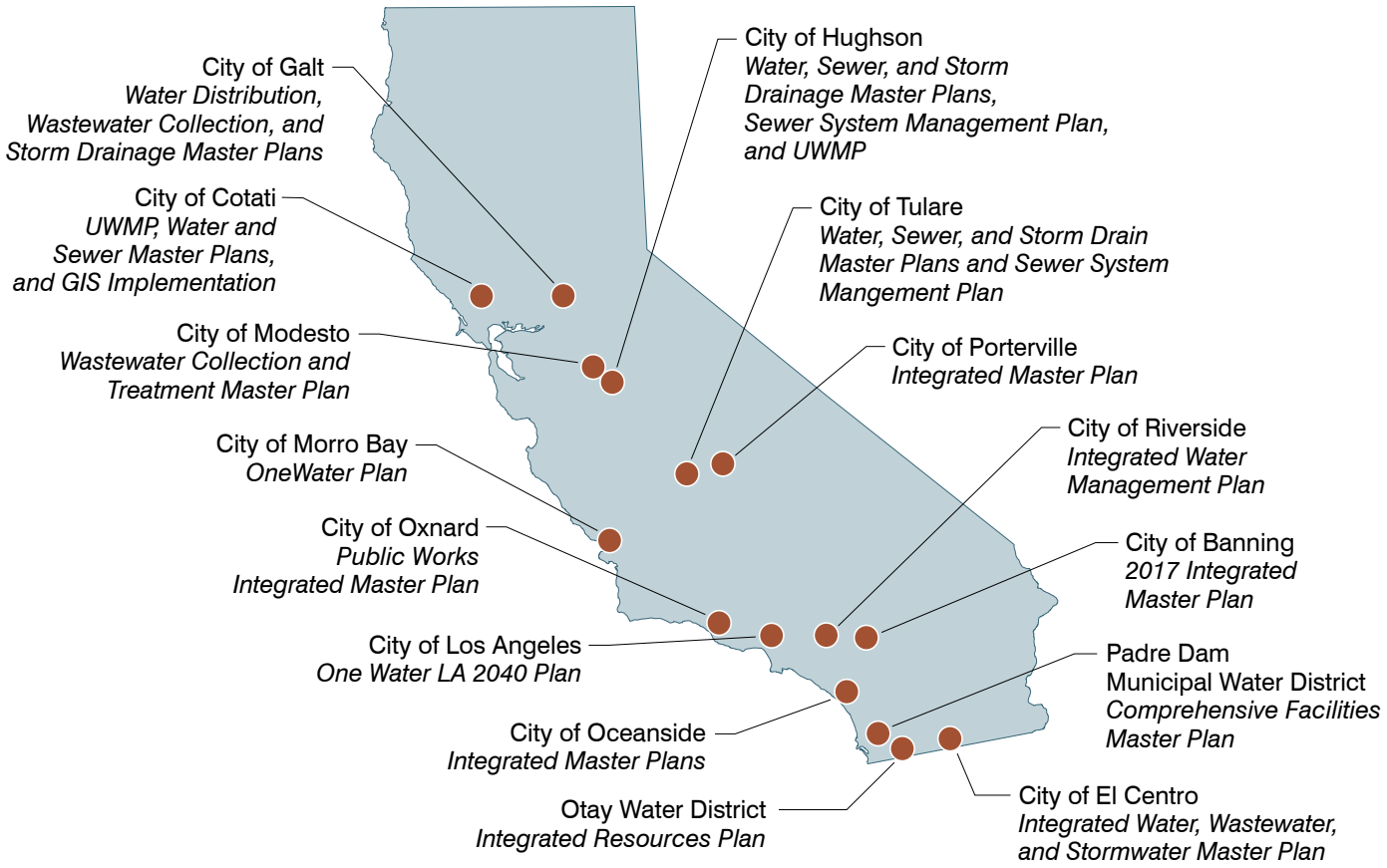
Unbiased Decision Process that leads to optimized solutions and defensible recommendations.

Integrated "One Water" Planning Experience is What Sets Carollo Apart

Other firms can claim they have infrastructure planning experience, but Carollo has established itself as a leader in the development of integrated and comprehensive One Water master plans for cities and agencies facing a variety of complex issues. Carollo's experience with integrated plans is what sets us apart from the rest.

More importantly, our project team has completed multiple integrated water, wastewater, recycled water, and stormwater master plans for many agencies in California. This integrated One Water planning experience allows us to deliver a high-quality integrated master plan in an efficient manner. Our integrated planning approach results in sound planning documents.

Through our experience we know exactly which tasks need to be closely coordinated to avoid redo work, stay on schedule, and obtain consistent master plans that the City can implement with confidence. Correlating project phasing and even pipeline alignments between the recommended potable, sewer, and stormwater projects is imperative to avoiding unnecessary construction burdens and saving costs for the City.



Carollo specializes in integrated One Water planning studies. In the last 10 years, we have completed more than 15 integrated plans in California alone, and have helped cities and municipalities just like yours prioritize projects and develop capital plans.

Firm Experience & References

SIMILAR EXPERIENCE

Carollo has established itself as a leader in the development of comprehensive and integrated utility master plans for cities and agencies facing a variety of complex issues. Our project team has completed multiple integrated water, wastewater, recycled water, and stormwater master plans for many agencies in California. This integrated planning experience allows us to deliver a high-quality comprehensive master plan in an efficient manner.

We have provided a list of projects completed in the past five years in the table below to further demonstrate our overall experience with projects similar to your IWWRMP. We have also provided client references as requested in the RFP. Detailed descriptions of select projects are provided in the References section.

Relevant Projects in the Last 5 Years

Client and Project Name	Reference	Water	Sewer	Recycled Water	Stormwater
Padre Dam Municipal Water District, CA | Comprehensive Master Plan	Mark Niemiec	■	■	■	
City of Oceanside, CA | Integrated Water, Recycled Water, and Wastewater Master Plan	Cari Dale	■	■	■	
Orange County Sanitation District, CA | Stormwater Master Plan (PS16-01)	Ted Vitko			■	■
City of Riverside, CA | Comprehensive Wastewater Master Plan	Ernest Marquez		■		
Inland Empire Utilities Agency, CA | Integrated Wastewater Facilities Master Plan	Chris Berch		■		
Eastern Municipal Water District, CA | 2015 RWRF Master Plan Update	Erik Jorgensen		■		
Central Contra Costa Water District, CA | Integrated Master Plan	Dan Frost		■	■	
City of Modesto, CA | Wastewater Collection System and Treatment Master Plan Update	William Wong		■		
City of Banning, CA | Integrated Master Plan	Arturo Vela	■	■	■	
City of Los Angeles, CA | One Water 2040 Plan	Ali Poosti	■	■	■	■
City of Oxnard, CA | Public Works Integrated Master Plan	Thien Ng	■	■	■	■
City of Porterville, CA | Integrated Master Plan	Mike Reed	■	■		■
City of Morro Bay, CA | OneWater Morro Bay Integrated Master Plan	Rob Livick	■	■		■
City of Glendale, CA | Water and Recycled Water Master Plan	Raja Takidin	■		■	
City of Pasadena, CA | Hydraulic Model Calibration	Brad Boman	■			
City of Colton, CA | Water and Wastewater System Master Plan and Condition Assessment	Mike Corey	■	■		
Otay Water District, CA | Integrated Resources Plan	Steve Beppler	■	■	■	■
City of Riverside, CA | Integrated Water Management Plan	Michael Plinski	■		■	■
San Gabriel Valley Water Company, LA County Division, CA | Water Master Plan	Kris Olson	■			
UC Irvine, CA | Campus-Wide Water and Recycled Water Master Plan	Fred Bockmiller	■		■	

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Staff Experience

THE RIGHT TEAM FOR SOUTH PASADENA

We have combined Carollo's local and national resources to assemble the right team of individuals with specialized expertise in water, wastewater, stormwater, and financial assistance. Our team will provide you with a technically sound, comprehensive, and fundable set of plans to guide future expenditures and deliver multiple benefits for every project.

Led by project manager Inge Wiersema, Carollo has assembled a project delivery team of specialists based on a simple but powerful principle—put the most qualified people in the roles essential to meeting project goals. Inge brings effective and proactive project management skills, a focus on client services, and extensive relevant experience managing projects of similar complexity and scope.

Our project organization is shown in the organizational chart below. On the following pages we summarize our team's qualifications and experience. Resumes are provided at the end of this section.

Preparation of Integrated Water and Wastewater Resources Management Plan (IWWRMP) - RFP #201908-02

CITY OF PASADENA PROJECT MANAGER
Julian Lee

QA/QC
Tim Loper, PE
Lara Kammereck

Principal-in-Charge
Gil Crozes, PhD

Project Manager
Inge Wiersema, PE

Project Engineer
Matt Huang, PE

Potable Water Master Plan Lead - Ryan Hejka
Recycled Water Master Plan Lead - Aimee Zhao
Sewer System Master Plan and SSMP Lead - Ryan Orgill, PE
Stormwater System Master Plan Lead - Bronwyn Kelly, PG
Master Planning Support - Laura Southworth
GIS - Jackie Silber, GISP
Funding Options - Kyle Rhorer
Infrastructure Replacement Plan - David Baranowski, PE
Flow Monitoring - V&A Consulting Engineers
Water Main Risk Assessment *(Optional)* - Fracta

PROVEN PROJECT MANAGEMENT

We bring a project management team consisting of senior leadership you can trust. Inge has extensive experience coordinating all elements of the project required for a technically sound integrated master plan and complying with the goals established for the project. Additionally, our team has worked together on many similar projects in the past and recently finished two large master planning projects. For you, this means a team of experts that works very well together, which results in efficient project execution and ability to conduct more in-depth analysis and deliver better quality deliverables in less time.

Inge Wiersema, PE | Project Manager

Inge is an environmental engineer with 24 years of experience. She is a vice president with Carollo and serves as the company's national One Water Director and Water Resources Practice Lead. Inge is specialized in strategic utility master planning and water resources projects and has been involved in more than 150 master planning and hydraulic modeling projects for water, recycled water, wastewater, and stormwater systems in Southern California. She also brings experience with stakeholder engagement, groundwater management plans, watershed management plans, urban water management plans, and water supply studies. Inge will be your primary point of contact throughout the project and brings a proven track record of completing the projects on schedule and within budget.

Matt Huang, PE | Project Engineer

Matt has significant experience with water resources planning throughout California. With 19 years of experience, he has been involved in numerous water and recycled water hydraulic modeling and master planning, but also has a broad base of experience, also working in water quality, water and wastewater treatment, water and sewer infrastructure, water resources, and wastewater system modeling and master planning, with experience in planning, design and construction. His experience encompasses many large planning and design projects, with projects in twelve states and seven foreign countries. In addition, Matt has worked with Inge on more than 20 master planning projects.

Team Member	Master Plans and Hydraulic Modeling Studies
Inge Wiersema	152
Matt Huang	112
Tim Loper	91
Lara Kammereck	73
Ryan Hejka	22
Ryan Orgill	82
Aimee Zhao	16
Laura Southworth	5
David Baranowski	33
Jackie Silber	42
TOTAL	628

Our team of experts has collectively worked on more than 625 master plans, water resources studies, and hydraulic models.

Gil Crozes, PhD | Principal-in-Charge

Gil is a senior vice president at Carollo with 29 years of experience specializing in water quality, water and wastewater facilities planning, treatment processes, studies, and treatment plant design. He brings a decade-long tenure supporting complex projects such as work on One Water LA. His areas of focus include groundwater treatment, surface water treatment, and wastewater treatment, as well as reuse of wastewater for irrigation and groundwater recharge.

Tim Loper, PE | QA/QC

Tim is Carollo's Infrastructure Master Planning Services Lead and has been working for the past 18 years exclusively on master planning, modeling, and asset management projects. Tim has served as project manager and/or project engineer for more than 50 water, wastewater, stormwater and/or recycled water master plans and modeling projects, with a focus on helping agencies develop capital improvement programs that help prioritize rehabilitation and replacement projects, as well as integrate capital with inspection and funding prioritization. Tim brings a pair of fresh eyes to the work we deliver to you as he is not involved in any of the project tasks. He will conduct technical reviews at all critical milestones according to Carollo's Best Management Practices.

Lara Kammereck | QA/QC

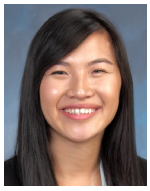
Lara is a municipal water system planning specialist with more than 25 years of experience in the field. She brings her in-depth utilities planning experience and leadership to meet the client's goals and objectives. Lara understands how to deliver technically sound planning documents for agencies, policy makers, and stakeholders. She brings a unique perspective with a resume of both her current consulting experience and municipal experience when she served as a water utility engineer for a city. She has provided leadership and quality management reviews for the successful development of numerous water system plans.

TECHNICAL SUPPORT

Strong technical support for this effort will be provided by the following discipline experts.

Ryan Hejka | Potable Water Master Plan Lead

Ryan is a civil engineer with six years of professional experience. He is specialized in water and recycled water system hydraulic modeling and master planning projects and is skilled in the use of a wide variety of hydraulic modeling packages including InfoWater, H2OMAP, Mike Urban, and Water GEMs. In addition, Ryan has extensive experience with ArcGIS and proficient in multiple programming languages that he utilized to build several customized water optimization models and tools for water agencies.



Aimee Zhao | Recycled Water Master Plan Lead

Aimee is an environmental engineer with four years of experience in master planning, hydraulic modeling, ArcGIS, capital improvement program development, and water resources studies. She also has extensive modeling experience with InfoWater and H2OMAP Water. Her experience in the water resource environment has provided her with a myriad of duties that have helped her hone her role as a proficient environmental engineer. Aimee also has excellent communication and writing skills to deliver user-friendly master plan reports and other studies.

Ryan Orgill, PE | Sewer System Master Plan and SSMP Lead

Ryan brings 15 years of experience dedicated specifically to infrastructure master planning projects. His expertise includes hydraulic modeling (water, sewer, and recycled water) in various software platforms, master planning, and geographic information systems (GIS). Ryan specializes in creating and calibrating hydraulic models, development of analysis criteria, evaluation of existing water systems, and the development of improvement projects to mitigate existing deficiencies and to serve future growth. He has worked on infrastructure master planning and hydraulic modeling projects for clients throughout the western United States, including California, Oregon, Washington, Nevada, Arizona, and Texas. In addition, Ryan has worked with both Inge Wiersema and Tim Loper on more than 20 master planning projects.

Bronwyn Kelly, PG | Stormwater System Master Plan Lead

Bronwyn has 18 years of experience on a wide range of water resources and stormwater monitoring projects. She has led projects ranging from small planning studies to multimillion dollar programs serving major metropolitan areas. service as the program manager for the Safe, Clean Water Program development with the City of Los Angeles, Bureau of Sanitation, and Project Manager and lead for multi-ple Enhanced Watershed Management Program (EWMP)/WMP development and CIMP implementation in urban runoff and stormwater quality monitoring programs, including the City of Los Angeles, the County of Los Angeles and Los Angeles County Flood Control District. Bronwyn also supported the City of San Diego's Storm Water Divisions, Water Quality Improvement Plans (WQIPs) Implementation for San Diego Watersheds.

Laura Southworth | Master Planning Support

Laura is an environmental engineer, joined Carollo in 2017 after receiving a Master of Science degree in Environmental Engineering from the University of Illinois at Urbana-Champaign. She has experience on a variety of projects for water and wastewater, including the City of Torrance Desalter Hydraulic Modeling project, San Gabriel Valley Water Company's Water System Master Plan Update, and development of the extensive hydraulic models for both the Los Angeles County Division and the Fontana Water Company Division. Laura has excellent analytical and writing skills and will assist the team with data analysis for demand forecasting, water supply, storage and pumping analysis.

Jackie Silber, GISP | GIS

Jackie is a GIS lead with more than 18 years of professional experience in GIS and technical training. Her experience includes GIS support for water resource planning, environmental remediation sampling, and demographic forecasting projects. Her GIS skills focus on geodatabase design and optimization, manipulation and conversion of projections, CAD and KML to GIS conversion, spatial analysis, automation of repetitive analysis using Model Builder and Python, and creation of cartographic figures. Jackie has worked with Inge and her team on numerous master plans by preparing GIS maps as well as sophisticated GIS analysis to support land use based water demand forecasting, model development, and spatial water system analysis.

Kyle Rhorer | Funding Options

Kyle has 27 years of experience managing and delivering management consulting services to publicly and privately owned drinking water, wastewater, and solid waste utilities, as well as regulatory agencies and other environmental service providers. He is also experienced in the areas of strategic planning, capital financing, and financial management.

David Baranowski, PE | Infrastructure Replacement Plan

David has 10 years of experience as an asset management analyst with extensive knowledge and experience in asset management processes and practices, as well as experience in the design of water and wastewater infrastructure. His asset management experience includes asset inventory and site assessment, asset register and hierarchy creation, risk analysis, asset useful lives and renewal modeling, and development of asset management plans.

SIMILAR EXPERIENCE OF OUR PROJECT MANAGER AND PROJECT ENGINEER

As requested in the RFP, the tables below contain a list of similar projects and clients our project manager and project engineer have completed in the past 5 years.

INGE WIERSEMA, Project Manager: Similar Projects Completed in the Last 5 Years

Project & Client Name	Year Completed
Fontana Water Company Division, San Gabriel Valley Water Company, CA | Water System Master Plan	2019
Los Angeles County Division, San Gabriel Valley Water Company, CA | Water System Master Plan	2019
East Orange County Water District, CA | Water Master Plan	2019
City of Morro Bay, CA | OneWater Morro Bay Integrated Master Plan	2018
City of Banning, CA | 2017 Integrated Master Plan	2018
UC Irvine, CA | Campus-Wide Water and Recycled Water Master Plan	2018
City of Los Angeles, CA | One Water LA 2040 Plan	2018
City of Pasadena, CA | Hydraulic Model Calibration	2017
City of Oxnard, CA | Public Works Integrated Master Plan	2017
City of Upland, CA | Hydraulic Model Reliability Study	2017
Molton Niguel Water District, CA | Recycled Water Master Plan	2017
Cucamonga Valley Water District, CA | Water System Master Plan	2017
City of Glendale, CA | Water and Recycled Water Master Plan & Hydraulic Model Development	2016
City of Oceanside, CA | Integrated Master Plan	2016
City of Colton, CA | Water and Wastewater Master Plan	2016
Otay Water District, CA | 2015 Integrated Resources Plan Update	2015
City of Riverside, CA | Integrated Water Management Plan	2015
City of Torrance, CA | Stormwater Quality Master Plan	2015
Padre Dam Municipal Water District, CA | Comprehensive Facilities Master Plan	2014
Mesa Water District, CA | Mesa Water System Master Plan Update	2014

MATT HUANG, Project Engineer: Similar Projects Completed in the Last 5 Years

Project & Client Name	Year Completed
Fontana Water Company Division, San Gabriel Valley Water Company, CA | Water System Master Plan	2019
Los Angeles County Division, San Gabriel Valley Water Company, CA | Water System Master Plan	2019
Long Beach Water Department, CA | West Long Beach Advanced Treated Water Feasibility Study	2019
City of Vacaville, CA | Recycled Water Feasibility Study	2019
Inland Empire Utilities Agency, CA | On-Call Recycled Water Modeling	2019
City of Glendale, CA | Hydraulic Model Calibration	2018
City of Morro Bay, CA | OneWater Morro Bay Integrated Master Plan	2018
City of Banning, CA | 2017 Integrated Master Plan	2018
City of Los Angeles, CA | One Water LA 2040 Plan	2018
City of Torrance, CA | High Zone Water Evaluation	2018
Mesa Water District, CA | Chlorine Conversion Study	2018
Marin Municipal Water District, CA | Pine Mountain Tunnel Replacement Evaluation	2018
Mesa Water District, CA | Nitrification Study	2017
City of Pasadena, CA | Hydraulic Model Calibration	2017
Cucamonga Valley Water District, CA | Water System Master Plan	2017
Cucamonga Valley Water District, CA | Water System Master Plan	2017
Elsinore Valley Municipal Water District, CA | Western/Murietta Transfer Study	2017
Elsinore Valley Municipal Water District, CA | San Bernardino Well Asset Transfer Study	2017
Central Contra Costa Sanitary District, CA | Collection System Master Plan	2016
City of Colton, CA | Water and Wastewater Master Plan	2016
Palmdale Water District, CA | Groundwater Well CT Study	2016

WHAT SETS CAROLLO'S TEAM APART?

Four key reasons the Carollo team is right for South Pasadena:

1. **Experience working together –** Carollo's planning team have collaborated on many projects within the last 10 years. Our project experience speaks for itself. This translates to work efficiences and cost savings.
2. **Dedicated task leads tailored to meet your needs –** Our water, sewer, storm, and recycled water task leads are hand picked to address the specific challenges you face. Their combined skill sets will deliver the integrated plans in accordance with the City's vision.
3. **A deep bench of unique technical talent –** We offer an experienced team of experts in infrastructure master planning; water, recycled water, wastewater, and stormwater treatment, as well as permitting and outreach to address your needs.
4. **Knowledge of local conditions –** Carollo's project manager, Inge Wiersema, is a long-time resident of South Pasadena and has worked with the City since 2012. She brings in-depth knowledge of local conditions to efficiently guide the project work and meet frequently and on short notice to facilitate excellent project communications from start to finish!

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Education

MSc Environmental Engineering, Agricultural University, Wageningen, Netherlands, 1997

BS Environmental Engineering, Hogeschool Van Utrecht, Netherlands, 1995

Licenses

Civil Engineer, California

Professional Affiliations

American Water Works Association

Association of Women in Water, Energy, and Environment

Water Environment Federation

WateReuse Association (Technical Chair of Los Angeles Chapter)

Inge Wiersema, P.E.

Inge Wiersema is an environmental engineer with 24 years of experience and is specialized in strategic water resources planning, including One Water approaches, as well as traditional utility master planning and hydraulic modeling. Her experience includes potable water, wastewater, recycled water, stormwater, and integrated planning projects. She has also worked on various groundwater, watershed, and urban water management plans, as well as a few sewer system management plans.

She also brings experience with stakeholder engagement with a broad range of audiences, ranging from the general public to executive management and political leadership. Ms. Wiersema is a Vice President and serves as Carollo's national One Water Director and Water Resources Practice Lead.

Relevant Integrated and One Water Planning Experience

→ Project manager for the One Water LA 2040 Plan for the City of Los Angeles, California. The Plan is a collaborative effort of the LA Sanitation (LASAN) and LA Department of Water and Power (LADWP) that takes a holistic approach to consider all types of water as "One Water." The Plan was developed through a stakeholder driven process. Inge was intimately involved in the stakeholder engagement process, including dozens of workshops with various City departments, regional agencies, NGOs, the community, academia, executive management, mayor's office. As project manager, Inge was responsible for the coordination of the work effort with City staff from multiple departments and more than 20 subconsultants. The final plan consists of 9 volumes, which will guide the City with strategic and multi-billion dollar decisions to make LA a more water resilient and sustainable City.

→ Technical Advisor for the OneWater Plan for the City of Morro Bay, California. This project involved the development of a strategic plan that considered the challenges of the City's wastewater treatment plant upgrade, development of local water supplies (including groundwater, indirect potable reuse and ocean desalination), water conservation strategies, and stormwater in a comprehensive manner. In addition, traditional water/wastewater/recycled water utility master planning with hydraulic modeling and CIP development was part of the project. Ms. Wiersema guided the One Water integration of all project components and optimization of plan recommendations.

→ Project manager for the Integrated Water Resources Plan for Otay Water District, California. This project involved the identification and evaluation of a wide range of water supply options to diversify the District's supply portfolio and reduce reliance on imported water through year 2050. The recommendations were presented to the board of directors.

→ Project engineer for Integrated Water Management Plan for the City of Riverside, California. The project identified a supply strategy to meet the City's potable and non-potable water demands, which will consider new wells, recycled water, groundwater recharge, salinity management, water conservation, stormwater, water treatment, and groundwater banking projects. The water supply evaluation identified 15 new water supply project opportunities. Detailed project descriptions, conceptual layouts, facility sizing, treatment options, and cost estimates were developed for each project. The projects were prioritized to meet the projected demands through 2035.

→ Technical advisor for the Public Works integrated master plan for the City of Oxnard, California. This project resulted in a long-term strategy and capital improvement program (CIP) for the City's water, wastewater, recycled water, and stormwater facilities, including a proposed aquifer storage and recovery (ASR) program. The project involved detailed analysis and CIP planning for the entire urban water cycle. Ms. was led the water master plan and was the technical advisor on the integration of all plan elements. The water master plan included water demand forecasting, hydraulic

modeling analysis using WaterGEMS, existing and future system analysis, development of a the water system CIP, including a rehabilitation and replacement program.

→ Project manager for the integrated water, recycled water, and sewer master plan for the City of Oceanside, California. This project includes potable and recycled water demand projections, sewer flow forecasting, water supply analysis, hydraulic model updates and calibration of the water and wastewater system models, and development of a new recycled water system model. An integrated master plan summary report was prepared that combined all plan elements into a prioritized roadmap, as well as individual master plan report for each water type to guide the City with the implementation of system improvements through year 2040.

→ Project manager for the 2014 comprehensive master plan for Padre Dam Municipal Water, California. This integrated master plan involves the District's water, wastewater, and recycled water infrastructure. This project includes potable and recycled water demand/sewer flows forecasting, water supply analysis, hydraulic model updates for the water and recycled water systems, development and calibration of a new sewer system model, and field condition assessment of key facilities. In addition, the feasibility of the wastewater plant expansion for an indirect potable reuse (IPR) project was evaluated. The findings were combined in a comprehensive CIP and water master plan report.

Relevant Master Planning & Modeling Experience

→ Project manager for the hydraulic model development project in 2012 for the City of South Pasadena, California. The project consisted of the development and calibration of a new hydraulic model, documentation, and training. A detailed field testing plan was developed and executed to collect field data for fire-flow, C-factor, and extended period simulation (EPS) calibration. The calibrated water system model was subsequently used to conduct a variety of on-call modeling analysis.

→ Project manager for the 2016 water and recycled water master plan for the City of Glendale, California. This project includes potable and recycled water demand forecasting, water supply analysis, hydraulic model updates for the water and recycled water systems. In addition, the infrastructure upgrades for the existing and future systems, including fire flow capacity upgrades, were evaluated. A facility condition assessment was conducted and recommendations were combined in a phased CIP, which was used to prepare a financial plan. Findings were compiled in a master plan report.

→ Project manager for the 2018 water system master plan for the Fontana Water Company. In addition to demand projections, supply analysis, water quality and treatment recommendations, storage and pump station analysis, a new hydraulic model was developed and calibrated in WaterGEMS to conduct hydraulic analysis of the entire water system. The CIP is supplemented by detailed project justifications that were presented to the California Public Utilities Commission (CPUC) for the 2018-2022 General Rate Case.

→ Project manager for the 2018 water system master plan for the Los Angeles County Division of the San Gabriel Valley Water Company. The project involved demand projections, water supply, water quality, treatment, storage and pump station analysis. A hydraulic model was updated and calibrated in WaterGEMS. The CIP was supplemented by detailed project justifications for the 2018-2022 General Rate Case for the CPUC. To complete the project within the aggressive 6-month schedule, Inge coordinated the work effort with a large project team located in 6 different offices in the US.

→ Project manager for the hydraulic model development for the City of Pasadena, California. A new hydraulic model was created and calibrated in InfoWater using field data.

→ Staff engineer for the Recycled Water Feasibility Study for the City of Pasadena, California. She served as the lead on development of the recycled water model and evaluation of various recycled water system configurations.

Education

MS Civil and Environmental Engineering, Stanford University, 1999

BS Applied Ecology, University of California, Irvine, 1998

Licenses

Professional Engineer, Oregon, Washington

Civil Engineer, California

Professional Affiliations

American Society of Civil Engineers

American Water Works Association

Matthew M. Huang, P.E.

Matthew Huang is an expert on hydraulic modeling and master planning and is Carollo's Distribution System Modeling Lead. He also has a broad base of experience, also working in water quality, water and wastewater treatment, water and sewer infrastructure, water resources, and wastewater system modeling and master planning, with experience in planning, design and construction. His project management background includes many large planning and design projects, with projects in 13 states and seven foreign countries. In addition, Mr. Huang has experience with a number of specialized computer programs, including InfoWater, H2OMAP, H2ONET, InfoSewer, InfoSWMM, InfoWorks WS, WaterGEMS, GoldSim, WEAP, and ArcView GIS, as well as a number of database, programming, scheduling, and spreadsheet programs.

→ Project engineer for San Gabriel Valley Water Company's two water system master plans, for their Los Angeles County Division and for the Fontana Water Company. Mr. Huang served as the hydraulic modeling lead for this fast-paced project, completing two water system master plans within a five-month period. This project was in preparation for San Gabriel's rate case to the CPUC, providing project justifications for use in the rate case.

→ Project engineer for Antelope Valley East Kern Water Agency's Water System Master Plan, California. This first-ever master plan for AVEK provides a comprehensive evaluation of AVEK's demands, water supply reliability, water banks, water system, staffing, replacement programs, SCADA system, water quality, design standards, and seismic reliability. These recommendations were combined into a Capital Improvement Program.

→ Project engineer for the Pasadena Water and Power Hydraulic Model Calibration. Mr. Huang's team was responsible for collecting field data, adding model controls, creating diurnal curves, and calibrating the model for both fire hydrant tests and for an extended period simulation.

→ Technical advisor for UC Irvine's Water and Recycled Water Master Plan, California. The project includes the creation of water system and recycled water system models, as well as a blueprint for additional facilities for UC Irvine to handle their projected growth and development on campus. This is the first water and recycled water master plan ever completed for the campus.

→ Technical review for Water Master Plan and Hydraulic Modeling Study for the City of Colton, California. Carollo performed a hydraulic evaluation for the City of Colton. Mr. Huang provided technical assistance on the hydraulic modeling, reservoir, and booster pump sizing for the master plan. He also provided review of a potential connection between the City of Colton and the City of Rialto and the impacts on Colton's water system.

→ Task engineer for Central Contra Costa Sanitary District's Collection System Master Plan, California. The project evaluates and models the entire collection system for the District. Mr. Huang's responsibilities include being the task engineer for the resiliency adaption plan and optimization plan. The main focus on the resiliency adaption plan is on the effects of climate change on rising water levels and peak storm events, while the focus of the optimization plan is on operation and maintenance procedures, as well as energy and chemical use.

→ Technical reviewer for City of Banning's Integrated Master Plan, California. Carollo is performing a water, wastewater, and recycled water master plan for the City of Banning. Mr. Huang is providing technical advice and review on various portions of the master plan.

→ Task engineer for One Water Los Angeles, California, Alternatives Evaluation. In OWLA, the project looks at the integration of all of the City's water assets, including imported water, groundwater, wastewater, recycled water, stormwater, and river flows. Mr. Huang is responsible for identifying large scale projects, identifying major criteria, and evaluating the projects based on that criteria to create portfolios of projects

for the City. The portfolios will then be evaluated to create a recommended plan for the City.

→ Project manager for the California Water Service Company Water Master Plan East Los Angeles District, California. Responsible for the coordination, planning, and execution of the project. In the project, his team evaluated existing and future water demands, water supplies, performing a facility assessment, and system evaluation for the District's water system. Key portions of the project included the development of a strategy to identify locations for new groundwater wells, including treatment, to increase groundwater supplies to allocated amounts. Another key portion of the project was the development of a facility inventory and condition assessment of all of the District's water facilities. Subsequent to the evaluation, a capital improvement program was developed for the District's water facilities.

→ Project manager for the La Puente Valley County Water District, Recycled Water Feasibility Study, California. He obtained a SWRCB matching grant for the District to pursue this study, and lead the team to complete the work. The work included identification of potential recycled water connections, evaluation of potential sources of recycled water, development, and evaluation of recycled water system alternatives, a cost evaluation, and development of recommended recycled water projects.

→ Project manager for the Long Beach Water Department (LBWD), Recycled Water Master Plan, California. This project for LBWD, in conjunction with Water Replenishment District (WRD), evaluates the available of recycled water supplies to serve additional recycled water customers. WRD was one of LBWD's largest recycled water customers; one of the key portions of this study was to evaluate whether there are sufficient recycled water supplies to meet needs for expansion of WRD's water treatment facility (using recycled water as supply for barrier injection). The study also develops alternatives and evaluates the feasibility of converting other customers from potable to recycled water and identifies the near-term recycled water projects for LBWD to pursue.

→ Project manager for the Central Basin Municipal Water District Recycled Water Master Plan, California. The project consisted in the development of the recycled water system for the District as well as portions of two neighboring regional water agencies, San Gabriel Valley Municipal Water District and Upper San Gabriel Valley Municipal Water District. He was responsible for the coordination of the project which included development of a recycled water demand database and identification of conceptual pipeline routings for future recycled water pipelines. The service area included over 1,000 potential recycled water customers within over 20 cities, as well as 25 segments of pipelines to serve these customers.

→ Project Manager for the Elsinore Valley Municipal Water District, Wildomar and Southern Region Feasibility Study, California. The District had previously designed a major trunk sewer and regional lift station to serve half of the District's service area for ultimate flow conditions. Due to economic constraints, the District was unable to construct the facility. This project evaluated alternative short-term solutions to address wastewater flow needs in this portion of the District's service area, as the existing system was already above capacity.

→ Project manager on the Long Beach Water Department (LBWD) Sewer Master Plan, California. The project included the development of a hydraulic model in InfoSWMM of LBWD's sewer collection system, calibration to field-collected flow monitor data and hydraulic evaluation of LBWD's entire sewer collection system. In addition, a pipeline replacement program was developed using a risk-based approach based on existing field maintenance data and pipeline condition assessments. Prioritization was developed for both pipeline inspection as well as rehabilitation programs. In addition to the Master Plan, Mr. Huang's team also completed the Sewer System Management Plan to meet State Water Resources Control Board Waste Discharge Requirements. Subsequent to the master plan, he developed a detailed pipeline rehabilitation program based on the review of field inspection videos.

Education

PhD Environmental Engineering, Institut National Des Sciences, Appliquees, France, 1994

MS Environmental Engineering, Institut National Des Sciences Appliquees, France, 1989

BA Biochemistry, University Paul Sabatier, Toulouse, France, 1988

Professional Affiliations

American Water Works Association, Membrane Technology Research Committee (Former Committee Member), Disinfection Systems Committee (Former Chair)

American Membrane Technology Association

International Desalting Association

WateReuse Association

Water Environment Federation

Gil F. Crozes, Ph.D.

Dr. Gil Crozes is a vice president at Carollo with 28 years of experience specializing in water quality, water and wastewater facilities planning, treatment processes, studies, and treatment plant design. He served the company as Manager of the Research Group for 10 years and also led a companywide Desalination Initiative. He coordinated the delivery of over 10 groundwater desalination projects, the majority of them located in California, Texas, Florida, Utah, and the Rocky Mountain states. His field of expertise encompasses conventional water and wastewater treatment processes as well as membrane treatment processes. He has membrane system expertise in reverse osmosis, nanofiltration, ultrafiltration, and microfiltration, along with ion exchange resin, and electrodialysis reversal, with applications in drinking water, reuse, and wastewater treatment. Other process expertise includes ozonation, advanced oxidation, activated carbon adsorption, air stripping, ultraviolet (UV) disinfection, and distribution systems water quality management. He has become well recognized in the water industry, having authored over 100 technical articles and papers.

Relevant Experience

→ Principal-in-charge for City of Los Angeles, Los Angeles Department of Public Works and Los Angeles Department of Water and Power One Water LA 2040 Plan. The plan aims to cooperatively develop an integrated framework and identify synergies for collaboration within the City and all of its City departments, as well as other agencies/entities, related to wastewater facilities, watersheds, water facilities and water resource efforts. This is a large undertaking as it is comprehensive in nature and connects water to environmental, economic, and social benefits that will build on the success of the City's 2006 Water Integrated Resources Plan (IRP). The project supports the City's goal to achieve even broader integration and collaboration in common water-related objectives, water planning, project implementation and funding to the extent possible.

→ Principal-in-charge for the Recycled Water Master Plan for the City of Carlsbad, California. This project included a recycled water market assessment including customer surveys, demand projections, development of a hydraulic model, hydraulic and water quality model calibration, analysis under existing and build-out conditions, and the preparation of a capital improvement program and comprehensive master plan report.

→ Principal-in-charge and project manager for the West Basin Municipal Water District, California, Capital Implementation Master Plan for Recycled Water Systems (CIMP). The CIMP was developed to address recycled water supply objectives and provide a road map of how implementation of future capital facilities will be achieved. The $1 billion order-of-magnitude CIMP includes facilities to expand the injection to the seawater barrier, the Title 22 system, and various services to industrial customers.

→ Principal-in-charge for the Proposition O Projects Optimization (TOS SN-60) for the City of Los Angeles Bureau of Engineering, California. In November 2004, Los Angeles voters passed the $500 million bond measure to fund multi-benefit stormwater management projects. To date, the City has implemented more than 30 projects using Proposition O funds. This project included review of the performance of 11 projects that use either natural treatment, chemical/mechanical, or low-impact development (LID) systems to treat stormwater. The performance review included overseeing water quality monitoring and developing standard operating procedures in collaboration with City staff.

→ Principal-in-charge for the Broadway Neighborhood Stormwater Greenway Project for the City of Los Angeles Bureau of Engineering, California. This project involved design of several recharge systems for a small subbasin in the Los Angeles River watershed to help reduce pollutant loading and increase recharge in the area. A predesign report and construction drawings were developed for two areas: a residential

neighborhood along 47th and 48th Streets where dry wells were designed and an area along Broadway Avenue, a four-lane street with commercial properties. Dry wells were designed for this area with careful consideration of location and depth due to proximity of larger building structures.

→ Principal-in-charge for the Penmar Water Quality Improvements Phase II for the City of Los Angeles Bureau of Engineering, California. This project involved design of a pumping system to convey water from an existing buried reservoir to a treatment facility before use as an irrigation supply. A 1,300-gpm submersible well pump was used due to high discharge pressure requirements (>100 psi) that traditional submersible pumps could not meet. A treatment building was included to filter and disinfect stormwater before being conveyed to the golf course and park irrigation system. An internal recirculation pump in the reservoir was included to improve disinfection and overall water quality before sending water out to the irrigation systems. A customized air-gap structure was also included to provide separation from the drain system and potable water system.

→ Principal-in-charge for the Temescal Canyon Park Stormwater BMPs Phase II for the City of Los Angeles Bureau of Engineering, California. This project involved design of a pumping system to convey water from an existing buried reservoir to a treatment facility before use as an irrigation supply. A 55-gpm submersible well pump was used due to high discharge pressure requirements (>100 psi) that traditional submersible pumps could not meet. A treatment building was included to filter and disinfect stormwater before being conveyed to the park irrigation system. An internal recirculation pump in the reservoir was included to improve disinfection and overall water quality before sending water out to the irrigation systems.

→ Principal-in-charge for the Los Angeles Bureau of Sanitation, California, Hyperion Treatment Plant (HTP) Secondary Evaluation and Study. The study evaluated alternatives to reduce the ammonia levels in the HTP secondary effluent that West Basin Municipal Water District (WBMWD) uses as the source of water for its recycled water treatment facilities.

→ Principal-in-charge for the Hyperion Reuse TOS SN-53 Program Management Services Project, Los Angeles Sanitation and Environment (LASAN), California. The project included program management support to develop the required for permitting MBR as pretreatment to reverse osmosis and other processes at the Hyperion WRP Advanced Water Facilities which distributes 235 mgd of treated water to the City of Los Angeles and other regional systems. Project management included contract development support, preparation of a Basis of Design Report, coordination with site-development, equipment prequalification, outreach, and engineering services during the Progressive Design-Build.

→ Principal-in-charge for the City of Los Angeles Department of Public Works Bureau of Engineering, Terminal Island Water Reclamation Plant Advanced Water Purification Facility Ultimate Expansion Project, California. Principal-in-charge and technical reviewer for the expansion of the advanced water purification treatment facility from 6-mgd to 12-mgd. The expansion includes additional microfiltration and reverse osmosis systems, advanced oxidation processes (AOP) system, and a balance of upgrades to the existing pumping systems, chemical addition system, comprehensive new control system, auxiliary systems, and utilities. The project includes the addition of an innovative AOP system using ultraviolet irradiation and sodium hypochlorite that will treat the full flow of 12-mgd and provide Full Advanced Treatment (FAT). To operate at a constant flow, as well as maximize production, the expansion includes a 2-million-gallon concrete tertiary effluent equalization tank upstream of the AWPF. Prior to the DB project, Dr. Crozes led two process evaluations tasks for optimizing and integrating the AOP.

Education

MS Environmental Engineering, University of California, Berkeley, 2005

BS Civil Engineering, California State University, Fresno, 2003

Licenses

Civil Engineer, California, Nevada

Professional Affiliations

Nevada Water Environment Association

American Water Works Association

Timothy J. Loper, P.E.

Timothy Loper is Carollo's Infrastructure Master Planning Services Lead and has 18 years of experience in water distribution system modeling, water system feasibility studies, wastewater collection system modeling, wastewater treatment facilities planning, and infrastructure master planning.

Relevant Experience

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

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

→ Quality control engineer for the City of Banning, California, Water and Wastewater Master Plan. The project involved updating the City's water, sewer, and recycled water master plans into an integrated master plan to guide the City with budgeting and implementation of capital improvement projects. Responsible for quality review and project oversite and technical direction.

→ Project engineer for the City of Oceanside, California, Integrated Master Plan, which included a new collection system hydraulic model prepared from GIS data using InfoSWMM. The existing system was evaluated with respect to existing and future capacity needs. The master plan also considered a phased plan for replacement of the City's water and wastewater pipelines as part of the rehabilitation and replacement program.

→ Project manager for City of Tulare, California, Sewer, Water, and Storm Drain Master Plans. This project developed master planning documents for planning infrastructure improvements to serve rapid growth within the City. Responsible for coordination of the water, sewer, and storm drain computer models that integrate GIS databases into the modeling platform. The City's wastewater collection system included industrial and domestic collection systems with separate treatment facilities. The storm drain project required coordination with Tulare Irrigation District for discharge of storm water from the City's drainage facilities. This project also developed the City's Sewer System Management Plan.

→ Project engineer for the Elsinore Valley Municipal Water District, California, Wastewater Master Plan. Responsible for coordination of GIS system integration into the hydraulic model environment and construction of a SWMM model incorporating four separate collection systems stations with three wastewater treatment facilities. Capital project recommendations were made to serve future growth and system modifications were analyzed to eliminate lift stations and force mains with gravity sewers. The project also included preparation of a master plan report including a capital improvement program. This project also developed the District's Sewer System Management Plan for all four of its separate collection systems.

→ Project engineer for the City of Los Banos, California, Wastewater Collection System Master Plan. The project involved collection and review of as-built drawings to be used in the collection system hydraulic model. The City has severe infiltration and inflow problems resulting from storm drain inlets directly connected to the wastewater collection system. A SWMM hydraulic computer model was used to route historical rainfall events and base wastewater flows

for 72-hour simulations. The analysis determined that, if the direct connections were removed, capacity limitations in the existing system would be relieved. The City is experiencing rapid growth and a capital improvement program was developed to serve future growth areas within the General Plan Sphere of Influence. Provided cost information and allocation of cost to the City's utility rate consultant.

→ Project manager for the City of Turlock, California, Sanitary Sewer, and Storm Water Master Plans. Responsible for overseeing the construction of the City's sewer and storm drainage system hydraulic models. The City's sewer collection system includes numerous direct storm drainage connections to the sewer system in the City's downtown area. As part of the analysis, several improvement alternatives were considered to alleviate capacity deficiencies in the majority of the sewer collection system in the downtown area, including replacing existing sewer pipelines with larger diameter sewers or removal of the direct storm drainage connections to the sewer. Costs associated with each alternative were prepared and presented to City staff, along with the pros and cons of each approach. Ultimately, the City's preferred alternative was to segregate the sewer and storm drainage collection systems. Preferred improvements to the sewer and storm drainage systems were incorporated into the Sanitary Sewer and Storm Water Master Plan reports.

→ Project manager for the City of Cotati, California, Wastewater Collection and Water Distribution System Master Plans and GIS Implementation. The City of Cotati contracted with Carollo to develop water distribution system and sewer collection system master plans and its 2010 Urban Water Management Plan, as well as plan and implement the City's first GIS system. Responsible for day-to-day project management and client contacts. Also served as project engineer for the Sewer System Master Plan. Carollo constructed hydraulic models of both the water and sewer systems and developed a flow monitoring report from data collected from another consultant. Developed evaluation criteria, assessed existing system deficiencies, and developed plans for future projects.

→ Project engineer for City of Galt, California, Wastewater Collection, Water Distribution, and Storm Drainage Master Plans. The project developed master planning documents for planning infrastructure improvements to serve rapid growth within the City. Responsible for development of the sewer system model that integrated GIS databases into the modeling platform. Developed alternatives to eliminate the largest pump station in the collection system by constructing a 42-inch trunk sewer to the wastewater treatment plant.

→ Engineer for the Santa Clara Valley Water District, California, Recycled Water Master Plan. Responsible for construction of a recycled water distribution system model, analysis of future demand scenarios, and sizing of future facilities and facility improvements.

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

→ Project manager for the City of Millbrae, California, Water System Master Plan. Carollo was contracted by the City to complete a water master plan that provided a capital improvement program to help mitigate storage deficiencies and hydraulic constraints caused by the separation of their four pressure zones. Tim was responsible for the update and calibration of the hydraulic model that was developed in InfoWater. The City's primary concern was lack of storage in its lower pressure zone and the potential for emergency outages in the event of a large earthquake.

Education

MBA Operations, Seattle University, 2005

BSCE Civil Engineering, Gonzaga University, 1992

Licenses

Professional Engineer, Washington

Civil Engineer, Oregon

Certification

Project Management Professional, Project Management Institute, 7/12/2011

Professional Affiliations

American Water Works Association (AWWA)

American Public Works Association (APWA)

Lara Kammereck, P.E., PMP

Lara Kammereck is a civil engineer with more than 27 years of experience focused on water and wastewater master planning for public utility systems. Ms. Kammereck specializes in master planning and demographic analysis and she has been involved in more than 50 comprehensive plans, master plans, and modeling projects. She has also worked on various water resources projects including source of supply analysis, emergency supply study, hazard mitigation plans, and vulnerability assessments. Her technical expertise also includes conceptual and preliminary design of pipelines and pump stations for both water and wastewater systems.

Ms. Kammereck is a trustee on the AWWA Water Resource Sustainability Division, chair of the national AWWA Water Resources Planning and Management Committee 2012-2015, and was project manager for the M50 Water Resources Planning Supply Practices Manual. In 2017, Ms. Kammereck served as Conference Chair for the Pacific Northwest Clean Water Association (PNCWA) annual conference.

Relevant Experience

→ Quality reviewer for the Water Master Plan Update for the City of West Sacramento, California. Reviewed the City's existing, skeletonized water system hydraulic model, as well as its most recent water system GIS database. As the previous model was about 10 years old, the City decided to construct the model from scratch based on its updated GIS database. The model was constructed in Innovyze's InfoWater hydraulic modeling software.

→ QA/QC lead for the Water Master Plan and Seismic Reliability and Resiliency Evaluation, Tualatin Valley Water District, Oregon. The District is the second largest water provider in Oregon, including over 762 miles of pipelines, 12 booster pump stations, 31 pressure zones, and 23 active reservoirs. The development of the District's 2015 Water Master Plan, included the development of the State's first Water System Seismic Resiliency Plan.

→ Quality manager and principal–in-charge for the General Sewer Plan Update for the City of Camas, Washington. The Plan includes an update to the City's sewer system hydraulic model to update the flow and load projections and provide recommendations for the Capital Improvement Plan. Additionally, an updated Operations and Maintenance Plan will be developed which focuses on Area Process Expectations.

→ Project manager for the City of Carnation, Washington, Stormwater Master Plan. The plan developed design criteria, evaluated existing basins and future development areas for deficiencies, and recommendations for regional stormwater detention facilities. The plan also established BMP and a public education program for future NPDES compliance.

→ Project manager for the City of Tukwila, Washington, Integrated Comprehensive Sewer and Water Master Plans. The Water Master Plan includes a water demand forecast, summary of source of supply analysis, detailed system supply analysis through year 2030, and CIP with associated financial requirements. The Sewer Master Plan includes sewer flow forecast and system analysis through year 2030. The project also involves evaluating existing lift stations for capacity to convey the projected quantities of sewage and infiltration and inflow (I/I), and a 20-year CIP.

→ Project manager for the 2017 Water System Plan Update for the City of Gig Harbor, Washington. The update will include an analysis of the existing systems, evaluation of the impact of future growth, federal, state and City regulations as well as recommendations regarding adequate supply and treatment and funding to meet future needs. A SEPA environmental review will be included.

→ Project manager for the 2017 Comprehensive Water System Plan Update for the City of Tumwater, Washington. The update will assess and update the short and long

Lara Kammereck, P.E., PMP

Awards

2017 OASIS Award for Water Resource Sustainability Division, AWWA

term strategy for supplying the City's customers with water meeting all regulatory requirements and optimization goals in a cost-effective manner; and ensure efficient use of available resources.

→ Project manager for the 2017 Water System Comprehensive Plan Update, City of Shelton, Washington. The Plan Update will encompass all changes to municipal water law and other requirements including the water service portions of the Shelton Area Water and Wastewater Plan. The Plan will include a water conservation program, capital improvement program, and a hydraulic model update.

→ Project manager for the 2015 Comprehensive Water System Plan for the Highline Water District, Washington. Prepared an update to the District's 2015 Water System Plan that evaluated the District's system for both 6-year and 10-year planning horizons. The new update included fresh demand projections based on land use and transportation analysis zone growth projections, updated supply, pumping and storage analyses, and hydraulic analysis of the distribution system suing the District's H20Net model. Recommended improvements were integrated into an electronic CIP tool that the District can continue to update in the future. The financial analysis included development of a financial program, cost-of-service analysis, rate structure evaluation, and General Facility Charge (GFC) update.

→ Project manager for the City of Bellevue, Washington, Comprehensive Water System Plan Update. Conducted an industry survey of storage criteria to benchmarks the City's criteria and recommend updates. Evaluated required storage volumes and identified future deficiencies for the City's 26 reservoirs. Storage improvement projects were sized to eliminate future deficiencies. Included planning for establishing emergency wells from existing, unused groundwater wells. Developed cost estimates to aid in evaluating at alternatives and creating phasing for the preferred alternative.

→ Project manager for the City of Renton, Washington, 2018 Long-Range Wastewater Management Plan Update. The project updated the City's plan and included an evaluation of the City's wastewater facilities using the City's updated and calibrated hydraulic model to develop a new 20-year CIP.

→ Quality manager/Principal-in-charge for the General Sewer Plan Update for the City of Camas, Washington. The Plan included an update to the City's sewer system hydraulic model and updated the City's Wastewater Treatment Plant Operations and Maintenance Manual.

→ Project manager for the Sanitary Sewer Master Plan Update for the City of West Linn, Oregon. This master plan update includes an evaluation of sanitary system performance that considers infill, redevelopment and new development, the identification of reduction strategies for inflow and infiltration, and operations and maintenance assessment, and the development and prioritization of capital improvement projects.

→ Project manager for the Reclaimed Water Comprehensive Plan for the City of Lacey, Washington. This Plan will identify potential future uses for reclaimed water, and where the City should focus efforts to develop a distribution system, capital improvement program, and financial plan toward that goal.

→ Project manager for the City of Lake Oswego, Oregon, Collection System Master Plan Update. The plan evaluated City policies and criteria, developed base and peak flows for each basin, assessed pipe and pump station conditions, evaluated capacity of major collectors and pump stations, and developed a CIP for addressing system deficiencies using the City's MIKE Urban hydraulic model. The plan will provide a practical and sustainable approach to the management of the City's wastewater system.

→ Project manager for Gig Harbor, Washington, Comprehensive Water Plan. The plan included a 20-year demographic analysis, source of supply study, update and calibration of the hydraulic model, and update of the CIP.

Education

BS Civil Engineering, California State Polytechnic University, Pomona, 2012

Licenses

Engineer-in-Training, California

Professional Affiliations

American Society of Civil Engineers

California Water Environment Association

Ryan M. Hejka

Ryan Hejka is a civil engineer with four years of professional experience. He is specialized in water and recycled water system hydraulic modeling and master planning projects and is skilled in the use of a wide variety of hydraulic modeling packages including InfoWater, H_2OMAP, Mike Urban, and Water GEMs. In addition, he has extensive experience with ArcGIS and proficient in multiple programming languages that he utilized to build several customized water optimization models and tools for water agencies.

Relevant Experience

→ Project engineer for the on-call hydraulic modeling for the City of South Pasadena, California. The project consisted of various hydraulic modeling evaluations to the hydraulic impact and new water system infrastructure requirements when new developers are connected to the existing distribution system. The model that was developed and calibrated during a previous project was utilized for these studies.

→ Task engineer for the Mass Balance Model for the One Water LA 2040 Plan, California. This project looks at the integration of all of the City's water assets. He was responsible for the development of a custom mass balance planning model that tracks all major flows in the City of Los Angeles in annual time steps from 2015 through 2020 under normal, wet, and dry year conditions. The modeled flow components include imported water, groundwater, wastewater, recycled water, stormwater, and discharges to the LA River and ocean. This model also includes a cost module and will be utilized in the alternatives analysis of the One Water LA 2040 Plan.

→ Staff engineer for the Water and Recycled Water Master plan for UC Irvine, California. The project includes the creation of water system and recycled water system models from AutoCAD maps, as well as a blueprint for additional facilities for UC Irvine to handle their projected growth and development on campus. This is the first water and recycled water master plan for UC Irvine. He was responsible for the model network creation from UCI's water system maps in AutoCAD, as well as the preparation of the model calibration plan.

→ Staff engineer for the Water Master Plan for the City of Colton, California. This project included water demand forecasting, hydraulic model development and EPS calibration using field fire flow testing. Existing and future system analysis was conducted to develop a CIP including a rehabilitation and replacement program. The findings were presented in a comprehensive water master plan report that was developed in conjunction with the Sewer Master Plan.

→ Staff engineer/modeler for the Comprehensive Facilities Master Plan for Padre Dam Municipal Water District, California. This integrated master plan involved the District's water, wastewater, and recycled water infrastructure. The project included (recycled) water demand/sewer flows forecasting, water supply analysis, hydraulic model updates for the water and recycled water systems, development and calibration of a new sewer system model, and field condition assessment of key findings. He was responsible for the modeling of the existing and future infrastructure. The feasibility of the wastewater plant expansion for an IPR project was also evaluated. The findings were combined into a comprehensive CIP and water master plan report.

→ Staff engineer/modeler for the Integrated Water, Wastewater, and Recycled Water Master Plans for the City of Oceanside, California. He was responsible for coordinating data gathering, supply analysis, and preparing the report on this $1.2 million assignment. The project involved water demand/sewer flows forecasting, water supply analysis, hydraulic model updates for the water and wastewater systems, and development of a new recycled water system model. In addition, the infrastructure needs of the development of the agricultural Morro Hills area, including soil percolation testing for feasibility analysis of septic tanks, were evaluated. CCTV of 60

sewer and 30 water pipeline segments was conducted. The findings were combined in a CIP and water master plan report.

→ Staff engineer/water system planner for the Water Master Plan Update for Mesa Water District, California. He was responsible for coordinating data gathering, designing the custom water supply and demand optimization model (WSDOM) in Microsoft® Excel, supply analysis, and preparing the report. This project involved demand projections, water supply analysis, hydraulic model update and calibration, extensive field condition assessment, and development of an optimization model. As part of the field condition assessment, all water system facilities (8 groundwater wells, 1 treatment plant, 2 reservoirs, 2 booster stations, and imported water connections) were visited. In addition, 2 miles of non-destructive pipeline testing was done. The findings of the modeling and condition assessment analysis were combined into a comprehensive CIP and water master plan report.

→ Staff engineer for the Integrated Water Master Plan for the City of Riverside, California. He was responsible for identifying potential stormwater recharge sites, sizing detention basins, sizing recharge site infrastructure, and preparing the report.

→ Staff engineer for the Water Master Plan for the City of Oxnard, California. This project included water demand forecasting, hydraulic modeling analysis using WaterGEMS, existing and future system analysis, development of a capital improvement program (CIP) including a rehabilitation and replacement program. The findings were presented in a comprehensive water master plan report that was part of the overall Integrated Master Plan.

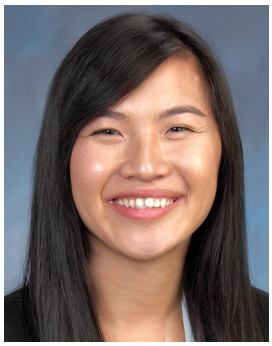
→ Staff engineer/modeler for the existing and future system supply and storage study for the Greenbelt pipeline system. The Greenbelt pipeline system is a main recycled water supply line of the Los Angeles/Glendale Water Reclamation Facility. He was responsible for determining the future infrastructure need of the storage and conveyance pipelines for customers along this pipeline.

→ Staff engineer/modeler for the on-call hydraulic modeling services for the expansion of the Los Angeles International Airport (LAX), California. Various fire flow scenarios were analyzed using the InfoWater hydraulic model developed by Carollo. He was responsible for updating the hydraulic model with their current facilities, hydraulic model analysis of pipeline velocities and residual fire flow pressures, and providing future infrastructure recommendations. The modeling results were used to advise the design team on layout and sizing of pipelines, valve configuration, and residual pressure.

→ Staff engineer/modeler for the water and fire water system analysis for the Utilities Infrastructure (UIP) master plan for LAX. The UIP included analyzing future water demand projections based on passenger counts. As part of this effort, As-Builts were utilized to update the existing LAX hydraulic model. Alternatives were then developed in the model to analyze existing and future water and fire water system deficiencies. Improvement projects were then prioritized into a phased capital improvement program (CIP) within the UIP.

→ Staff engineer for the Nitrification Study for Mesa Water District, California. This project involved extensive field data gathering and analysis to identify trends and solutions for nitrification events. He was responsible for the hydraulic modeling analysis that was conducted to identify potential hydraulic contributing factors, such as water age and system operations. Alternative operations were evaluated to determine the impact of hydraulics changes. Recommendations were included in the nitrification mitigation and prevention plan.

→ Staff engineer/modeler for the Metropolitan Water District hydraulic model development and calibration. He was part of a team responsible for building the District's hydraulic model from existing GIS data. He also assisted in the calibration of the model using historic data, as well as the calibration the model to utilize active controls.



Education

MS Environmental Engineering, University of California, Irvine, 2014

BS Earth and Environmental Sciences, University of California, Irvine, 2011

Aimee Zhao

Aimee Zhao joined Carollo in March 2015 as an environmental engineer. Her experience encompasses hydraulic modeling, ArcGIS, capital improvement program planning, and master planning. Additionally, she has experience in creating asset management tracking systems and water sampling programs. Her experience in the water resource environment has provided her with a myriad of duties that have helped her hone her role as a proficient environmental engineer.

Relevant Experience

→ Staff engineer for the 2019 Water Distribution System Infrastructure Plan for the City of Santa Barbara. This ongoing project includes potable water demand forecasting, Infowater hydraulic model updates, model calibration, supply analysis, outage scenario evaluations.

→ Staff engineer for the 2018 Water Master Plan for San Gabriel Valley Water Company Los Angeles Division. The project includes potable water demand forecasting, Infowater hydraulic model updates, model calibration, and supply analysis. In addition, the infrastructure upgrades for the existing and future system were evaluated and included in a capital improvement program (CIP) and report. Project justifications were developed for the near-term CIP and presented as part of the general rate case.

→ Staff engineer for the 2018 Water Master Plan for Fontana Water Company. The project includes potable water demand forecasting, Infowater hydraulic model development and calibration, and supply analysis. Infrastructure upgrades for the existing and future system were evaluated and included in a capital improvement program (CIP) and report. Project justifications were developed for the near-term (4-year) CIP and presented as part of the general rate case.

→ Staff engineer for the 2017 Integrated Master Plan for the City of Banning. The project includes and integrated approach to potable water, wastewater, and recycled water demand/flow forecasting, Infowater hydraulic model updates and model calibration for the potable water and wastewater systems, hydraulic model creation for the recycled water systems, and supply analysis. In addition, the infrastructure upgrades for the existing and future systems were evaluated for each system and included in an integrated capital improvement program (CIP) and report.

→ Staff engineer for the Water and Recycled Water Master plan for UC Irvine, California. The project includes the creation of water system and recycled water system models, as well as a blueprint for additional facilities for UC Irvine to handle their projected growth and development on campus. This is the first water and recycled water master plan for UC Irvine.

→ Staff engineer for the 2016 Water Master Plan for Cucamonga Valley Water District, California. The project includes potable water demand forecasting, Infowater hydraulic model updates, hydraulic model calibration using SCADA, and development of customer specific diurnals. In addition, the infrastructure upgrades for the existing and future systems will be evaluated and the findings will be combined in a capital improvement program (CIP) and water master plan report.

→ Staff engineer for the 2016 Water Master Plan for the City of Glendale, California. The project includes potable and recycled water demand forecasting, water supply analysis, hydraulic model updates for the water and recycled water systems using H_2OMap. In addition, the infrastructure upgrades for the existing and future systems, including fire flow capacity upgrades, were evaluated. The findings were combined in a capital improvement program (CIP) and water master plan report.

→ Staff engineer for the 2016 Water Master Plan for the City of Colton, California. The project included water demand forecasting, hydraulic model development and EPS calibration using field fire flow testing. Existing and future system analysis was conducted to develop a capital improvement program

Aimee Zhao

(CIP) including a rehabilitation and replacement program. The findings were presented in a comprehensive water master plan report.

→ Staff engineer for the 2015 Urban Water Management Plan for the City of Big Bear Lake Water Department, California.

→ Staff engineer for the hydraulic model development for the City of Pasadena, California. As part of this project, a new hydraulic model was created from GIS by Innovyze. Carollo conducted technical review of the model network and enhanced the model topology and added water system controls based on communications with the City's operations staff. A model calibration plan was prepared and the model will be calibrated for extended period simulation conditions. The model development process will be documented in a report along with a model maintenance manual.

→ Project engineer for on-call water system modeling for the City of Santa Barbara, California. As part of this on-call contract, various modeling studies were conducted related to the new desalination plant. Each study was summarized in separate technical memoranda. Studies completed to date include: 1) Energy Optimization Study for various production scenarios; 2) Extreme Drought Analysis with various supply options; and 3) Transmission Main analysis to serve Montecito Water District.

→ Staff engineer for the recycled water hydraulic modeling study for the City of Santa Barbara, California. The project involved incorporating future customer demands into the existing recycled water hydraulic model in Infowater. Various operational scenarios for the filling of a new potential storage pond and the golf course were evaluated to determine the best operational conditions to decrease pressure fluctuations throughout the system.

→ Staff engineer for On-Call Hydraulic Modeling Services for the expansion of the Los Angeles International Airport (LAX), California. Various fire flow and domestic water scenarios were analyzed using the Infowater hydraulic model developed by Carollo. The modeling results were used to advise the design team on layout and sizing of pipelines, valve configuration, and residual pressure.

→ Staff engineer for the 2016 Recycled Water Master Plan for Moulton Niguel Water District. This project includes recycled water demand forecasting, modeling, and alignment alternatives analysis to evaluate the most cost-effective system expansions. In addition, a turf replacement analysis tool was developed and a field condition assessment of existing recycled water system facilities was conducted. Ms. Zhao was responsible for the recycled water customer market assessment, purple pipe expansion analysis in GIS, and the development of the turf removal tool and analysis.

→ Staff engineer for the Water Element of the Utilities Infrastructure Master Plan for Los Angeles International Airport (LAX), California. The UIP included analyzing future water demand projections based on passenger counts. As part of this effort, As-Builts were utilized to update the existing LAX hydraulic model. Alternatives were then developed in the model to analyze existing and future water and fire water system deficiencies. Improvement projects were then prioritized into a phased CIP within the UIP.

→ Assistant engineer for various tasks for the Orange County Sanitation District, California. Tasks included:

- Assisted in the management of routine collection system cleaning, schedule, and data.

→ Engineering intern for the West Basin Municipal Water District, California. She was responsible for the following tasks:

- Assisted Engineering/Operations staff with capital improvement projects and department duties, including board memo updates for CIP projects, submittal reviews, permit applications, and grant applications.

  Created an asset management system (Microsoft® Access) to efficiently track asset conditions and inspection information, which was previously tracked manually by spreadsheets.

Education

BS Civil Engineering, California State University, Fresno, 2006

Licenses

Civil Engineer, Nevada, California

Professional Affiliations

American Water Works Association

California Water Environment Association - Central San Joaquin Section

Ryan F. Orgill, P.E.

Ryan Orgill brings 14 years of experience dedicated specifically to infrastructure master planning projects. His expertise includes hydraulic modeling (water, sewer, and recycled water) in various software platforms, master planning, and geographic information systems (GIS). Ryan specializes in creating and calibrating hydraulic models, development of analysis criteria, evaluation of existing water systems, and the development of improvement projects to mitigate existing deficiencies and to serve future growth. He has worked on infrastructure master planning and hydraulic modeling projects for clients throughout the western United States.

Relevant Experience

→ Project Engineer for the City of Morro Bay, California, OneWater Morro Bay Plan. Responsible for overseeing the development of hydraulic models of the water distribution, sewer collection, and storm drainage systems. Improvement projects and a capital improvement plan were developed to mitigate capacity deficiencies.

→ Hydraulic modeling lead for the City of Santa Barbara, California Water Model Update. Responsible for update and calibration of the City's water system hydraulic model using the InfoWater modeling software application, development of a system specific diurnal pattern for the City, and custom hydraulic model training for City staff.

→ Project engineer for the City of Cotati, California, Sewer and Water System Master Plans. Responsible for hydraulic model development and calibration, existing and build out analysis of the water and sewer systems, development of capital improvements to mitigate existing deficiencies and to service future growth, development of a staged capital improvement plan, and development of the final Sewer and Water System Master Plan reports.

→ Project engineer for the City of Tulare, California, Water System Master Plan. Responsible for hydraulic model creation and calibration, development of analysis criteria, evaluation of the City's existing water system, development of improvement projects to mitigate existing deficiencies and to serve future growth, and development of a staged capital improvement plan.

→ Staff engineer for the Los Angeles International Airport (LAX) Phase I fire flow analysis for the Central Terminal Area (CTA) of LAX, California. Responsible for development and calibration of a hydraulic computer model of the CTA water distribution system, development of evaluation criteria, and fire flow analysis of the CTA distribution system. The model calibration consisted of both an extended period simulation and a fire flow calibration of the CTA system. The fire flow analysis of the CTA distribution system involved evaluation of a number of potential alternatives to increase the available fire flow at various areas in the CTA distribution system.

→ Staff engineer for the Victorville Water District, California, 20-Year Comprehensive Water Master Plan. Responsible for calibration of the District's ID2 water distribution system hydraulic model, evaluation of the ID2 water system, and development of improvement projects to mitigate existing deficiencies and accommodate future growth.

→ Staff engineer for the City of Galt, California, Water System Master Plan. Assisted in the preparation of the City's Master Plan report and development of a staged capital improvement plan.

→ Staff engineer for the City of Hughson, California, Water System Master Plan. Assisted in the preparation of the City's Master Plan report and development of a staged capital improvement plan.

→ Project engineer for the City of Tulare, California, Storm Drainage System Master Plan. Responsible for hydraulic model creation, development of analysis criteria, evaluation of the City's existing storm drain collection system, development of improvement projects to mitigate existing deficiencies and to serve future growth, and development of a staged capital improvement plan.

Ryan F. Orgill, P.E.

→ Staff engineer for the City of Galt, California, Storm Drainage System Master Plan. Responsible for development of capital improvements to the storm drainage system in order to service future growth within the study area, assistance in the preparation of the Master Plan report, and development of a staged capital improvement plan for the City.

→ Engineer for the City of Oceanside, California, Sewer System Master Plan. Responsible for system evaluation, hydraulic modeling, development of the Sewer Master Plan report, and custom model training for City staff.

→ Project engineer for the Elsinore Valley Municipal Water District, California, Sewer System Management Plan, which included development and review of all applicable SSMP requirements, including a system evaluation and capacity assurance plan.

→ Project engineer for the City of Tulare, California, Sewer System Management Plan, which included development and review of a system evaluation and capacity assurance plan, overflow emergency response plan, and a fats oils, and grease control plan.

→ Hydraulic modeling support for the City of Paso Robles, California, Recycled Water Distribution System Design. The project includes preliminary design confirmation, final design, and bidding services. The system includes approximately 49,000 feet of pipeline ranging in diameter from 6 inches to 24 inches, 1-MG storage tank, and pump station. The project will cost $ 1.2 million and is estimated to be completed in August 2019.

→ Project engineer for the City of Galt, California, Recycled Water Evaluation. Responsible for identification of potential recycled water customers in and near the City, estimation of potential recycled water demands, development of a conceptual recycled water distribution system, and development of planning level costs associated within the implementation of a recycled water system.

→ Project engineer for the City of Cotati, California, Sewer and Water System Master Plans. Responsible for hydraulic model development and calibration, existing and build out analysis of the water and sewer systems, development of capital improvements to mitigate existing deficiencies and to service future growth, development of a staged capital improvement plan, and development of the final Sewer and Water System Master Plan reports.

→ Staff engineer for the City of Galt, California, Wastewater Collection, Water Distribution, and Storm Drainage Master Plans. Responsible for calibration of the hydraulic computer model to both dry weather and wet weather conditions, assistance in the preparation of the Master Plan report, and development of a staged capital improvement plan for the City.

→ Project engineer for the City of Tulare, California, Sewer, Water, and Storm Drainage Master Plans and Sewer System Management Plan. Tasks included creation and calibration of a dynamic hydraulic sewer system model to evaluate flow monitoring data, development of flow routing criteria, and evaluation of the existing sanitary sewer system to mitigate deficiencies to serve future growth.

→ Project engineer for the City of Turlock, California, Sanitary Sewer and Storm Water Master Plans. Responsible for overseeing the construction of the City's sewer and storm drainage system hydraulic models. The City's sewer collection system includes numerous direct storm drainage connections to the sewer system in the City's downtown area. As part of the analysis, several improvement alternatives were considered to alleviate capacity deficiencies in the majority of the sewer collection system in the downtown area, including replacing existing sewer pipelines with larger diameter sewers or removal of the direct storm drainage connections to the sewer. Ultimately, the City's preferred alternative was to segregate the sewer and storm drainage collection systems. Preferred improvements to the sewer and storm drainage systems were incorporated into the Sanitary Sewer and Storm Water Master Plan reports.

Education

BS Geology, Mississippi State University, 1994

MS Geology, University of Arkansas, 1997

Licenses

California Professional Geologist, No. 8347

PMI Certified Project Management Professional (PMP), No. 1574264

California Certified Qualified Stormwater Pollution Prevention Plan (SWPPP) Developer (QSD)/Practitioner (QSP)

Qualified Industrial Stormwater Practitioner (QISP)

OSHA Hazwoper Certification

Professional Affiliations

California Stormwater Quality Association (CASQA)

Bronwyn K. Kelly, PG, PMP, QSD/P

Bronwyn Kelly has 18 years of experience on a wide range of water resources projects. Throughout her career, Ms. Kelly has managed complex projects throughout Southern California with high political and environmental stakes, and is an expert facilitator of communication among clients, subcontractors, and personnel; and regulatory compliance issues. Teams have included hired in-house engineering staff, and subcontracted consultants.

Highlights of Bronwyn's career include service as the program manager for the Safe, Clean Water Program development with the City of Los Angeles, Bureau of Sanitation, and Project Manager and lead for multiple Enhanced Watershed Management Program (EWMP)/WMP development and CIMP implementation in urban runoff and stormwater quality monitoring programs, including the City of Los Angeles, the County of Los Angeles and Los Angeles County Flood Control District per the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit for Los Angeles County. Bronwyn also supported the City of San Diego's Storm Water Divisions, Water Quality Improvement Plans (WQIPs) Implementation for San Diego Watersheds.

As part of these projects, Bronwyn directed the implementation of non-structural and structural BMPs, and guided the client through a complex maze of stakeholder issues, technical feasibility issues, and political and regulatory issues to develop a cost-effective BMP iterative approach that met regulatory criteria, and environmental stakeholder group expectations.

Relevant Experience

→ Project Manager, Los Angeles Bureau of Sanitation, Safe Clean Water Program Development. In preparation of the implementation of the SCW Program throughout Los Angeles County, Carollo is providing program planning and implementation services for LASAN. As part of the multi-faceted program planning activities, the team focused on incorporating the SCW Program's three main objectives: water quality benefits; water supply benefits; and community benefits with a focus on disadvantaged communities. As part of the technical track, Bronwyn led a team through the development and review of feasibility studies of stormwater capture projects across the City.

→ Project manager, Torrance Airport Stormwater Infiltration Project, City of Torrance. The infiltration project consists of designs for diversion structures, underground pretreatment system, infiltration galleries with infiltration capillary units or underground cisterns with stormwater injection wells a, and two monitoring wells. Stormwater will be diverted via two storm drain inlets. The preliminary design utilizes an unsaturated and saturated flow model (MODFLOW) for purposes of evaluating mounding, water quality, and particle transport beneath the infuriation system and potential impact on existing groundwater contamination in the project area.

→ Project manager for Planning for Stormwater to Supplement San Diego's Pure Water Program, for the City of San Diego, California. The City of San Diego Pure Water Program evaluated the feasibility of capturing and treating stormwater and other runoff from urban areas to enhance long-term water supplies as part of Phase 2 of their program. The City of San Diego's Pure Water Program is a phased, multi-year program aimed at providing additional local supply through expanded water reclamation and advanced water purification. Phase 1 of the Pure Water Program will be the first potable reuse project permitted in California for reservoir augmentation. The City would like to evaluate the feasibility of capturing stormwater for diversion to the existing sewer system for use as an additional water supply for Phase 2 of the Pure Water San Diego Program. The evaluation includes: an assessment of the wastewater collection

Bronwyn K. Kelly, PG, PM, QSD/P

Work Approach

Some of the keys to Ms. Kelly's work approach include:

→ Facilitate collaboration with all parties involved with projects including clients, subcontractors, and impacted personnel.

→ Communicate project objectives and their relationship to organizational objectives with all stakeholders in a timely, unambiguous, and uniform matter. Delegate project objectives to team members based on their abilities, and incorporate individual goals and projects into team synergies.

→ Prioritize in-house and subcontracted resources according to project needs and goals.

→ Report team and individual successes and areas in need of improvement to senior management.

→ Ascertain and develop strategies to overcome hindrances to short-term and long-term project success.

system capacities and limiting reaches; a characterization of local watersheds suitability for capture projects; a review of wastewater treatment systems; a review of relevant regulations; and considerations of other infrastructure improvements that would be required to accommodate stormwater. Ultimately, 15 sites were focused on to develop conceptual designs. It was found that many of the concepts offer multiple benefits beyond primary objective (water supply though municipal reuse) including: stormwater compliance, environmental enhancement, groundwater recharge, recreational features; and direct harvesting and use at the sites.

→ Project manager for the City of San Diego Storm Water Division, Water Quality Improvement Plans (WQIPs) for San Diego Watersheds, California. Supported the City of San Diego (City) and other Responsible Parties in the development of Water Quality Improvement Plans (WQIPs) for the Los Peñasquitos, San Diego, and Mission Bay watersheds. Mandated by the 2013 San Diego Municipal Storm Water Permit, the WQIPs provide a systematic approach for addressing sediment and bacteria TMDLs in the watersheds.

→ Project Manager, City of Los Angeles Bureau of Sanitation (LASAN), TOS SN-39: Specialized Services for Proposition O Projects, Los Angeles, CA. Proposition O (Prop O) has funded a number of water quality improvement projects in the City of Los Angeles since 2004. The Prop O projects are part of a strategic plan identified in the Total Maximum Daily Loads (TMDLs) Implementation Plans required by the Los Angeles Regional Water Quality Control Board to meet water quality standards through the Municipal Stormwater Permit. The Prop O projects are new and unique, with multi-purpose benefits including water supply, water quality, flood reduction, storm water reuse, and recreation opportunities, and are designed to improve water quality in the City of Los Angeles. Under TOS SN-39, Ms. Kelly managed a team that evaluated the eleven (11) Prop O projects as part of the TOS that have been under construction during the "optimization period", in order to make sure that the project elements are working in an optimal manner to assist in meeting water quality requirements. During this optimization phase, the physical, chemical, and biological characteristics of the green projects will be examined, and proper protocols for hydraulic, vegetation, and treatment elements will be established for the long term sustainability of the Prop O projects.

→ Los Angeles Stormwater Quality Manager/Project Manager, City of Los Angeles Bureau of Sanitation (LASAN), TOS SN-61: Specialized Services for the Generation of Data Required by the Coordinated Integrated Monitoring Programs (CIMPs).

→ Los Angeles Stormwater Quality Manager/Project Manager, City of Malibu, CIMP for the North Santa Monica Bay Coastal Watersheds (NSMBCW). Managed a team that supported the stormwater and non-stormwater monitoring program as identified in the CIMP on behalf of the City of Malibu, the County of Los Angeles, and the Los Angeles County Flood Control District.

→ Los Angeles Stormwater Quality Manager/Project Manager, Upper Santa Clara River Watershed Management Group (USCRWMG). Led a team that assisted the City of Santa Clarita, the County of Los Angeles, and the Los Angeles County Flood Control District in the implementation of a CIMP that was developed along with an Enhanced Watershed Management Program (EWMP) in response to the National Pollutant Discharge Elimination System (NPDES), Municipal Separate Storm Sewer System (MS4) Permit issued by the Los Angeles Regional Water Quality Control Board (RWQCB).

→ Project manager for the Los Angeles County Department of Public Works, Upper San Gabriel Watershed Management Group, Enhanced Watershed Management Program (EWMP), Los Angeles, California. Led a team to assist in the development of the Upper San Gabriel River Watershed Management Group's EWMP and a CIMP in response to the MS4 Permit issued by the RWQCB.

Education

MS Environmental Engineering, University of Illinois at Urbana-Champaign, 2017

BS Environmental Engineering, McGill University, Montreal, Quebec, 2012

Laura M. Southworth

Laura Southworth, an environmental engineer, joined Carollo in 2017 after receiving a Master of Science degree in Environmental Engineering from the University of Illinois at Urbana-Champaign. She has experience on a variety of projects for water and wastewater.

Relevant Experience

→ Staff engineer for the City of Torrance Desalter Hydraulic Modeling Project. The project examined the implications and potential changes to the City's water system as it shifts from mostly imported water to mostly local groundwater as its main water source. The project modeled several scenarios with varying amounts of water provided by the City's wellfields and desalters under several projected demand conditions to anticipate major infrastructure improvements needed under each scenario.

→ Staff engineer for Metropolitan Water District of Southern California, Casa Loma Fault Crossing Project. Provided engineering on a design to replace Casa Loma Siphon Barrel No. 1, which is a component of the Colorado River Aqueduct. Barrel No. 1 has experienced recurring leaks along a reach that crosses the Casa Loma Fault zone. The design will address leaks due to siphon vertical displacement and includes replacement of 1,200 feet of pipe and couplings with a type of pipe referred to as earthquake-resistant ductile iron pipe.

→ Staff engineer for the project Simi Valley Sewer System Reliability Assessment and Financial Plan Update, City of Simi Valley, California. The update will support the City's investments in its wastewater facilities. The project will include a risk-based approach, criticality ranking, performance metrics, and determined expected outcomes of the Asset Management Plan (AMP). Specific tasks include evaluating and updating the City's existing asset inventory; identifying assets in need of replacement funding and determine replacement timing; incorporating the results of previous planning and asset evaluation efforts into a plan for aboveground and belowground sanitation assets; and prioritizing the rehabilitation and replacement (R&R) of assets through a risk-based framework.

→ Staff engineer for a Water System Master Plan Update for the Fontana Water Company (FWC), which is part of the San Gabriel Valley Water Company (SGVWC) an investor owned public utility water company in California. The project includes existing demand analysis, development of peaking factors and future demand projections through year 2045. In addition, the project includes a water supply analysis, water quality analysis, and groundwater treatment recommendations, storage and pump station analysis. Field condition assessments will be conducted for the systems 38 plant sites.

→ Staff engineer for the Lankershim Boulevard Green Street project for the City of Los Angeles Bureau of Sanitation, California. The project has the dual purpose of capturing stormwater for infiltration and greening the Lankershim corridor in Council District 2 located in the San Fernando Valley. The outreach component of the project aims at informing and engaging two distinct groups of stakeholders: business owners and residents near the project site. The project will be implementing green systems along the corridor in phases in order to mitigate the negative impacts of traffic and reduced parking. Components of these green systems include drywells, bio swales, and drought tolerant plant material. Trees will also be planted along the Lankershim corridor.

→ Staff engineer for the final design of North City Pure Water Facility (NCPWF), City of San Diego, California. This is the Pure Water Program's premier project and the first project of its kind in California. NCPWF will purify 34 mgd of tertiary effluent from the NCWRP to meet the recently published (July 2017) Title 22 California Code of Regulations for surface water augmentation indirect potable reuse (IPR) to discharge to Miramar Reservoir.

→ Staff engineer for the Demonstration Pure Water Facility (DPWF) Ozone and BAC

Relocation project for the City of San Diego, California. To allow for the construction of the North City Pure Water Facility (NCPWF) influent pump station, the City needs to relocate the DPWF biologically active carbon (BAC) filter and ozone systems. Carollo provided preliminary and final design for this project. As part of the preliminary design, Carollo evaluated existing BAC backwash system and identified areas of improvement. Carollo also provided structural evaluation of the existing chlorine contact basins.

→ Staff engineer for the SN39 specialized and expert services for Proposition O (Prop O) projects optimization for the City of Los Angeles Bureau of Sanitation (LASAN), California. The consulting team examined physical, chemical, and biological characteristics of the Prop O projects; prepared operations management manuals to establish proper protocols for long-term sustainability of the completed projects; and provided training to LASAN staff on optimizing the performance of the projects.

→ Staff engineer for the Advanced Water Treatment Demonstration project for the Metropolitan Water District of Southern California (MWDSC), California. MWDSC plans to operate the AWT Demonstration Facility for one year to determine the most appropriate process train for implementation in a full-scale AWT Facility that would produce water for groundwater recharge. The goal of the AWT Demonstration Facility is to obtain necessary scientific and technical data for regulatory approval and validate design and operating criteria for the full-scale AWT Facility.

→ Staff engineer for the DC Tillman Advanced Water Purification Facility (AWPF) for the City of Los Angeles Bureau of Sanitation (LASAN), California. The AWPF will treat up to 25 mgd of tertiary effluent from DCTWRP. Additionally, this project will replace DCTWRP's existing chlorine disinfection with ozone disinfection for Title 22 (irrigation) reuse applications. The DC portion of this project would convert the existing chlorine contact common effluent channel to an ozone contactor, such that the AWPF and DCF together would have the capacity to treat DCTWRP's maximum flow of 80 mgd. The AWPF and DCF will share the same liquid oxygen (LOX) storage and ozone generator equipment.

→ Staff engineer for the design of the Los Angeles Aqueduct Filtration Plant and Los Angeles Reservoir Ultraviolet Treatment Facilities for the Los Angeles Department of Water and Power, California. The project included the development of criteria and preparation of UV system drawings and specifications for the 600-mgd Los Angeles Aqueduct Filtration Plant and the 650-mgd Los Angeles Reservoir. The UV systems are designed to obtain Giardia and Cryptosporidium inactivation credit in accordance with LT2ESWTR, the UVDGM, and State Water Board Division of Drinking Water (DDW) requirements. Carollo was tasked with evaluating UV system hydraulics, electrical design, and UV system layouts including yard piping. Key challenges for UV implementation included the selection of design criteria for UV transmittance and fouling, selection of UV vendor technologies, addressing hydraulic constraints, and developing a UV system design and implementation strategy that met the overall project schedule with DDW approval. CFD to evaluate UV system layout alternatives, including inlet and outlet channels and bypass structures, to minimize headloss and optimize passive flowsplit with the UV system. The layouts also addressed geotechnical constraints, including known faults in the area of the UV facility, while minimizing excavation and yard piping costs.

Previous Experience

→ Graduate research assistant at the University of Illinois at Urbana-Champaign, Illinois. She was responsible for evaluating the impacts of organic fouling on membrane capacitive deionization systems. She also ran baseline fouling and cleaning experiments with a lab-scale reactor that she designed and built.

→ Laboratory/Field technician at UC Berkeley, California. She worked with a professor to conduct field work and lab processing/analysis for a biogeochemistry lab. She also assisted post-doctoral researchers with experiments and sampling.

Education

MGIS, Penn State University, 2017

BA Geography, California State University, Northridge, 2001

AA Geology, Pasadena City College, 1997

Certifications

Certified Geographic Information Systems Professional (GISP), Geographic Information Systems Certification Institute, 2012

Jackie M. Silber, GISP

Jackie Silber is a geographic information systems (GIS) lead with more than 16 years of professional experience in GIS and technical training. Her experience includes geospatial GIS analysis for water resource planning, environmental remediation sampling, and demographic forecasting projects. Her GIS skills focus on geodatabase design and optimization, manipulation and conversion of projections, CAD and KML to GIS conversion, spatial analysis, automation of repetitive analysis using Model Builder and Python, and creation of cartographic figures.

Relevant Project Experience

→ GIS specialist for the San Gabriel Valley Water Company Water System Master Plan Update, California. In addition to developing figures illustrating system deficiencies, Ms. Silber also developed a Python script to loop through an 11 million record table and sum the total water demands for every customer.

→ GIS specialist for the City of Banning, California. As part of the Integrated Master Plan, Ms. Silber developed figures representing the existing recycled water system as well as the proposed non-potable reuse system.

→ GIS specialist for the University of California, Irvine, Recycled Water System Analysis and Capital Improvement Program. Ms. Silber worked with hydraulic modelers to illustrate future system pressure deficiencies and pipeline velocities.

→ GIS specialist for the OneWater Plan for the City of Morro Bay, California. This project involved the development of a strategic plan that considered the challenges of the City's wastewater treatment plant upgrade, development of local water supplies, water conservation strategies, and stormwater in a comprehensive manner. In addition, traditional water/wastewater/recycled water utility master planning with hydraulic modeling and CIP development was part of the project.

→ GIS specialist for the City of Medford, Oregon Sanitary Sewer Master Plan. To help the City anticipate future needs, Ms. Silber, developed figures illustrating the locations of high I/I due to sewer trunk line deficiencies. Also investigated existing and future land use changes per parcel as part of a wastewater capital charge per equivalent residential unit analysis.

→ GIS specialist for the Hillsborough County, Florida Capital Improvement Program. As part of the on-call potential Septic Replacement/Water Line Extension Program, Ms. Silber performed geospatial analysis to determine the number of septic parcels within wellhead protection and high hazard coastal areas. Additionally, produced figures of wastewater facilities and parcels served by current infrastructure.

→ GIS specialist for a Long-Range Wastewater Management Plan for the City of Renton, Washington. As part of the pipe risk approach, Ms. Silber developed an ArcGIS-based criticality and vulnerability model. The model identified and prioritized critical assets in close proximity to key infrastructure or that are susceptible to failure.

→ GIS specialist for the U.S. Agency for International Development (USAID) Infrastructure Needs Program Bulk Water Supply Systems Master Plan (Southern West Bank, Palestine). As part of a team responsible for defining the future water facility needs in the southern West Bank, developed GIS data, traveled to the West Bank, and presented the data to USAID and other key stakeholders. With the help of bilingual staff, also conducted a workshop for GIS specialists to review the data developed, which included three geodatabases and a file system of existing and recommended water and wastewater infrastructure. Pipeline data was imported from AutoCAD and created from heads up digitizing on aerial photography and was compared against the hydraulic schematic. Assisted project managers with locating potential wells/wellfields based on topology, cone-of-depression, and other hydrologic constraints. Additionally, elevation profiles from ground surface data were created for proposed regional pipelines. Geologic scanned imagery was

georeferenced to a common projection system and a file system was created to maintain organization. Also served as internal project coordinator for the final deliverable.

→ GIS specialist for the Los Angeles County Waterworks District 29, California, Water System Master Plan. Compiled and developed a water infrastructure geodatabase and geocoded the water billing data to correlate metered usage data with parcels. Using current land use and future zoning parcel data, analyzed water demands for private customers. Also created pressure zones and allocated commercial demands for fire flow in InfoWater.

→ GIS specialist for on-call GIS services for the City of Westminster Water Department, California. To provide current updates to the District's GIS data, Ms. Silber cleaned, projected, and updated the City's valves and hydrant attributes. Additionally, she cleaned the pipeline topology and created a map book for field personnel. The data was delivered and used as part of the training for water district personnel on using maintaining the map book.

→ GIS specialist for the Stormwater Capture BMP Site Suitability Analysis for the Upper San Gabriel River Enhanced Watershed Management Program, California. Using a uniform grid, performed a multi-criteria decision analysis of valued and binary constraints to identify potential stormwater BMP sites in the Watershed as part of the Los Angeles County MS4 Permit Compliance. The constraints were scored and weighted to rank the locations. Iterative tasks such as classifying the locations were automated using python scripts.

→ GIS specialist for the Mission Creek and Garnet Hill Subbasins Water Management Plan for the Coachella Valley Water District, Desert Water Agency, and Mission Springs Water Districts, California. As part of a collaborative groundwater replenishment program, analyzed population and other demographic projections and mapped the watersheds and multi-habitat conservation areas.

→ Lead cartographer for the Los Angeles Department of Water and Power (LADWP), California, Owens Lake Groundwater Evaluation Program, which is a collaborative program between LADWP and the Inyo County Water Department to evaluate use of groundwater for dust mitigation on Owens Lake. Provided GIS support for well location identification, and was responsible for managing the GIS data for the project. Working with hydrgeologists and modelers, mapped surface geology, groundwater contours, consumptive use, and water quality surrounding the Owens Lake Bed. Also produced well log illustrations.

→ GIS lead for the Mesa Water District, California, Free Chlorine Conversion Study. Ms. Silber developed figures to illustrate the supply sources at different demand conditions.

→ ArcGIS online administrator/technical advisor for the City of Houston, Texas, Northeast Water Purification Plant.

→ ArcGIS online administrator for the City of Reno, Nevada, Northwest Model Expansion and Capacity Analysis and Master Plan Story Map project.

Kyle B. Rhorer

Kyle Rhorer has more than 25 years of experience in managing and delivering management consulting services to publicly- and privately-owned drinking water, wastewater, and solid waste utilities, as well as to regulatory agencies and other environmental services providers. Prior to joining Carollo Engineers, he was Vice President and Western Region Senior Client Manager for SAIC Energy, Environment and Infrastructure, LLG, formerly R. W. Beck, Inc. Mr. Rhorer specializes in the development of public-private partnerships for design, construction, and operation of water, wastewater, and solid waste utility infrastructure. He is also experienced in the areas of strategic planning, capital financing, financial management and controls.

Education

MBA Business Administration, University of California, Davis, 1993

BA Economics, University of California, San Diego, 1988

Professional Affiliations

Design-Build Institute of America

American Water Works Association

Water Environment Federation

Relevant Experience

→ Task leader for the Contra Costa Water District, California, Capital Program Financing Study, which involved development of short- and long-term financing strategies for a $200 million capital program consisting of capital improvements for a regional drinking water conveyance system. Responsible for identification and evaluation of various financing options (revenue bonds, federal and state loan/grant programs, capital reserves, sinking funds, etc.) with respect to funding availability, project applicability, and relative strengths and weaknesses. Overseeing the design of a comparative financial model that identifies all capital, replacement, and operations and maintenance costs for each financing option, as well as the timing and frequency of the financial outlays, resulting in a net present value comparison of options on a life-cycle cost basis that considers all costs, as well as inflationary impacts.

→ Project manager for the City of Sparks, Nevada, Rate Study and Utility Formation. Helped the City improve the fiscal management of its sanitary sewer, stormwater, and reclaimed water utilities while promoting a fair and equitable allocation of costs to customers. The project had three objectives: 1) develop an organizational and financial structure for the City's stormwater and reclaimed water utilities; 2) determine the adequacy of the City's revenue recovery practices for sanitary sewer, stormwater, and reclaimed water functions; and 3) develop an integrated, user-friendly financial model that will allow the City to determine fair and equitable user fees for the sanitary sewer, stormwater, and reclaimed water utilities in accordance with Title 13 of the Sparks Municipal Code. In the end, the City approved recommendations and the structure of the stormwater utility. Based on the reasoning in the study, the City Council committed to the rate adjustment.

→ Project manager for a valuation study for a confidential regional California drinking water utility that was considering acquisition of a smaller neighboring drinking water utility. The study involved identification of all capital and non-capital assets and financial analysis focusing on the long-term financial obligations and cash flow projections. The information was then applied to three valuation approaches (cost, market, and income) to produce a range of supportable valuations for the utility under acquisition consideration. Long-term financing considerations for the acquiring utility were then analyzed, along with stranded asset and economy of scale considerations and the associated potential rate impacts for both customer bases.

→ Project manager for the City of Tempe, Arizona, Integrated CIP Financial Planning Model. Developed a comprehensive financial model for the City that integrates its capital improvement program with budget and revenue management systems. The spreadsheet-based model develops 20-year budget and rate projections for the City's drinking water, wastewater, and irrigation systems. The model allows the City to run an infinite number of "what if" analyses to determine the budgetary and user rate impacts associated with alternative capital improvement programs. The model also facilitates rate sensitivity analyses at the customer class level to determine appropriate ratemaking policies for the City. The City adopted the model, which is currently being used to project user rates.

Kyle B. Rhorer

→ Project manager for the American Water Works Association (AWWA), Hawaii Section, CIP Financial Model and Rate Model for Small Utilities. Designed and developed an easy-to-use spreadsheet-based rate model for small drinking water utilities in Hawaii. Small Utility Rates and Finances (SURF) is a sophisticated budget- and rate-setting spreadsheet that incorporates a user-friendly interface for financial data entry. By answering a script of questions concerning the water utility's characteristics and historic costs, a utility manager directs SURF to automatically develop a budget and rate schedule.

→ Project manager for the South Coast Water District, Laguna Beach, California, Asset Management and Financial Equalization Study. Managed a comprehensive asset management engagement to assist the newly consolidated District in designing and implementing a 'financial equalization' strategy for its service area. The first step in the project was completing an inventory of all water and wastewater assets, as well as registering each and rating its condition. Findings from the inventory were used in determining the contribution made by each of the service areas during the consolidation process. Contributions were quantified and the appropriate 'financial equalization' was determined. Based on this information, the District's first 'asset registry' was developed from key information for each asset. Utilizing a valuation approach for each asset that took into account replacement value less depreciation, the asset condition ratings obtained during the site visits were applied to calculate the net contribution, by asset, for each service area. By analyzing the relative asset contributions provided by each service area, a supportable 'financial equalization' methodology was developed that will be implemented by the District to ensure fairness and equity for all ratepayers.

→ Project manager for the South Coast Water District, Laguna Beach, California, Water and Sewer Rate Methodology Development, which was a subsequent effort to the financial equalization study. Led the design of a new user rate structure for the District's newly consolidated water and sewer utilities. This project required a complete overhaul and consolidation of five separate rate structures, converting over 100 separate residential, commercial, and industrial user classes to a new streamlined revenue recovery methodology. In addition to designing the new water and sewer rate structures, developed a multi-year implementation strategy to ensure stable cash flow while minimizing user rate shock to District customers. The District adopted and implemented the new rate structure.

→ Project manager for the San Francisco Public Utilities Commission (SFPUC), California, CIP Strategic Business Plan. Managed a high-level engagement to develop an overall strategy for SFPUC's implementation of a $4 billion capital improvement program, the largest CIP in the history of San Francisco. Also served as key architect of the utility-wide planning process to develop a new organizational design and associated mission, vision, and performance measures against which the utility will evaluate the feasibility of implementing the program. In addition to all day-to-day project management responsibilities, developed an overall directional plan and strategy to involve all SFPUC stakeholders including customers, management, staff, and elected officials.

→ Project manager for the Santa Clara Valley Water District, California, Utility Performance Audit. Performed a comprehensive review of the District's water utility. The scope included a review of the operations, capital improvements program, water quality, public/government relations program, and financial management and business operators of the utility. The audit produced a series of practical recommendations, many of which the District is now implementing. Recommendations included a cost-of-service study, implementation of performance measures, and organizational realignment. Also led the financial performance assessment task and made recommendations to improve the District's fiscal management programs and capital planning functions.

Education

BS Mechanical Engineering, University of California at Berkeley, 2008

Licenses

Civil Engineer, California

Professional Affiliations

Water Environment Federations (WEF)

American Society of Civil Engineers (ASCE)

David C. Baranowski, P.E.

David Baranowski is a senior analyst with Carollo Engineers' Utility Advisory Services and Strategic Management Group. He has been working in the fields of planning and asset management for more than 10 years, serving primarily water and wastewater clients. His project experience includes gap analyses, asset register and hierarchy development, risk analyses, renewal modeling, and the development of asset management plans for a wide variety of clients. He is also one of Carollo's condition assessment leads, responsible for efforts to assess facilities and plan for future work. His combination of experience in planning, asset management, and design helps to apply practical solutions to challenges.

Relevant Experience

→ Condition assessment Lead for the Water System Master Plans for the San Gabriel Valley Water Company, California. David led the effort to assess the condition of the water distribution pipelines and the facilities (wells, reservoirs, and pump stations) to determine the renewal projects for the next 25 years. The Water Company operates two separate systems, which required the construction of two separate pipeline models that used leak data and geospatial references to calculate the risk of failure for more than 1,200 miles of water pipes. David conducted site visits of 80 facilities to visually assess condition and developed renewal costs for all sites.

→ Condition assessment task lead for the Comprehensive Wastewater Master Plan, City of Riverside, California. As part of the comprehensive plan, David led a team of engineers to assess six lift stations and the Regional Water Quality Control Plant. David developed a list of projects to be included in the master plan based on asset conditions and field observations. These projects included cost estimates and recommended timing to be included in the overall master plan financial planning rate and fee structure for the next five years.

→ Condition assessment task lead for the Integrated Master Plan, City of Banning, California. David led a team of engineers to visually assess City water and wastewater sites to determine the near-term and long-term funding needs based on the condition of the facilities. The project included the determination of project timing and costs to be included in the water and sewer master plan portions of an integrated master plan to guide the City with the budgeting and implementation of CIPs.

→ Condition assessment lead for the Master Sewer Plan for the Tahoe-Truckee Sanitation Agency, California. David led a multidisciplinary team of engineers to assess the condition of the Water Reclamation Plant with the purpose of developing a capital improvement plan for the next 25 years. David reviewed exiting information to produce a list of assets to be assessed, coordinated the 3-day field assessment with the team and the agency, and combined the results into a technical memorandum as part of the Master Sewer Plan. David was responsible for all aspects of the plant assessment, from planning to final results.

→ Project engineer for the Collection System Master Plan, Central Contra Costa Sanitary District (CCCSD), California. Project. David performed the risk analysis for the District's sewer pipes and created the updated collection system Asset Management Plan. The Plan included individual analyses for the sewer pipes, force mains, and pump stations including an updated asset inventory, results from recent condition assessment, risk results, projected funding needs, and recommendations to advance the Asset Management Program. David worked closely with the District to set up the risk analysis and delivering a working model to the District for future use.

→ Assistant project manager for the Sewer System Reliability Assessment and Financial Plan Update project for the City of Simi Valley, California. David led the day to day efforts of the project and was part of the condition assessment team that evaluated the City's Water Quality Control Plant. David evaluated the condition of the plant assets

to determine improvement projects for the next 20 years. He directed the creation of a sewer pipe model to identify improvement projects in the collection system. He developed cost estimates and prioritized all improvement projects for the collection system, plant, and SCADA system into a comprehensive 20-year capital improvement plan.

→ Technical lead for the InfoMaster Implementation, Cape Fear Public Utility Authority, North Carolina. David is currently leading the data review and model setup for the sewer pipeline replacement and rehabilitation model for the Authority's sewer system. The project will include the review of CCTV data and loading it into the model to be used to assess the condition of the pipelines. He will be responsible for the set up the model, produced results, and trained Authority staff on the use of the model.

→ Project manager for a Wastewater Treatment Plant Asset Condition Assessment Update for the Union Sanitary District (USD), California. David led the effort to conduct a multi-day assessment of all treatment plant assets. The project included updating the condition scoring and risk assessment framework to be used in the development of a 20-year Capital Improvement Plan (CIP) for the District's 33 MGD facility.

→ Assistant project manager for the Asset Management Plan Update for the Yorba Linda Water District, California. David led the effort to gather and analyze asset data to produce a long-term funding projection for the water and wastewater infrastructure assets to build upon the work completed in the 2010 Asset Management Plan. The project includes a risk analysis, facility condition assessments, and financial planning.

→ Project manager for the Utility Asset Accounting Analysis for the South Orange County Water Authority (SOCWA), California. David is currently assisting SOCWA with an evaluation of the asset records to determine the value of all wastewater collection and treatment assets to feed a financial audit.

→ Project engineer for the Facilities Master Plan for the Orange County Sanitation District (OCSD), California. David developed the renewal and replacement model for OCSD's collection system pipes using the InfoMaster software. David was responsible for creating the model and setting up a risk-based analysis to prioritize pipelines for renewal. David was part of a team that performed a quality check on OCSD CCTV data by watching inspection videos and checking the accuracy of CCTV scoring. David combined with information with other OCSD data and staff input to identify specific projects to be included in the Facilities Plan. The projects consisted of a map of the proposed alignment, project scope, estimated costs, and recommended timing for roughly 20 projects.

→ Project engineer for the Asset Management Organizational Assessment for the Fallbrook Public Utility District. David met with District staff and reviewed information to assess the current state of their Asset Management program. The assessment focused on the organization's practices related to the knowledge of their assets, how they evaluate condition and risk, and how they prepare and track their capital improvement program. The assessment included an evaluation of the existing information systems and how they are being leveraged within the Asset Management program. The final TM outlined specific ways for the District to improve its Asset Management program.

→ Project engineer for the Water System Facilities Condition Assessment for the City of Colton, California. He performed field inspections of 13 wells, 5 booster stations, and 5 reservoir sites. He prepared a condition assessment report that noted poor condition equipment, site issues, and upgrade recommendations for each of the sites and prepared a CIP budget for the next 20 years. The projected included a review of record drawings and City records for each of the sites.

Subconsultant Experience

SUBCONSULTANTS

Part of being an expert in water consulting is knowing which firms to team with when faced with a project that requires specific specialty services. Carollo has selected two subconsultants to augment our team who will provide quality and timely deliverable of our services. We have carefully selected these firms based on their expertise and familiarity with similar projects in Southern California.

V&A Consulting Engineers | Flow Monitoring

Since 1998, V&A has supported municipalities and agencies in managing their water and wastewater collection systems and mitigating sanitary system overflows. The firm's flow monitoring division incorporates the latest data collection and metering technologies and conducts a wide-range of inflow and infiltration (I/I) analysis for municipalities and master-planning consultants. V&A specializes in rain-dependent, groundwater and/or tidal I/I. They also perform reconnaissance providing a clearer picture of system condition. V&A consults on regulatory matters including U.S. Environmental Protection Agency (EPA) Consent Decrees, Stipulated Orders, or Administrative Orders.

Carollo has worked with V&A on more than 50 collection system planning and modeling projects within the last 15 years, including studies for the cities of Oxnard, Oceanside, Los Banos, Modesto, Morro Bay, Tulare, Galt, Oakland, the Central Contra Costa Sanitary District, West County Wastewater District, and Mt. View Sanitary District.

For this project, V&A will conduct flow monitoring to collect both dry and wet weather flow data to calibrate the City's sewer collection model. As shown on the schedule, we plan to conduct this work in February 2020 to maximize the chance of collecting wet weather events to determine the impact of I/I in the City's collection system.

Fracta | Water Main Risk Assessment (Optional Task)

Fracta is a cutting edge asset management solution that uses artificial intelligence (AI)—specifically Machine Learning—to assess the condition and risk of drinking water distribution mains. The Fracta Platform is a cloud-based software that can be connected to other important software applications used by water utilities such as GIS, Enterprise Asset Management (EAM), Computerized Maintenance Management Systems (CMMS) and Asset Management Planning and Optimization (AMPO).

Fracta can complete Likelihood of Failure (LOF), Consequence of Failure (COF), and Business Risk Exposure (BRE) assessments for an entire water main distribution system. Results are visualized using dynamic graphs and charts. New data can be uploaded and modeled several times per year, enabling a dynamic, near real-time assessment of the system.

The Fracta solution shifts asset operation and management from reaction to prevention. It helps avoid disruptive water main breaks, lower non-revenue water (NRW), better target leak detection and valve maintenance efforts, and educate key stakeholders on the true cost and risk of their aging water main infrastructure. This new way of looking at water main data for an entire water distribution system enables water engineers, financial planners, and executive management to make fast, accurate, and affordable asset management decisions about their buried water main infrastructure.

For this project, Fracta will conduct a phased water main risk assessment using the Fracta Platform if this optional task is elected to be included as part of the IWWRMP. During the first phase, the LoF of the City's water mains will be determined, while the CoF and BRE will be assigned in Phase 2. The risk scores will then inform the prioritization of the water main R&R program.

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Project Understanding

PROJECT BACKGROUND & UNDERSTANDING

The City of South Pasadena (City) was incorporated in 1888 and is located just 6 miles northeast of downtown Los Angeles. The City is home to approximately 26,000 residents and is known for its historical homes, tree-lined streets, attractive neighborhood parks, excellent public schools, and small-town community atmosphere. The City is considered built out and has not experienced any significant population growth despite some densification along Mission Street, one of the City's main thoroughfares. The City provides water distribution, wastewater collection, and stormwater drainage services throughout its nearly 3.5-square-mile service area. A brief summary of each of these utility systems is provided below.

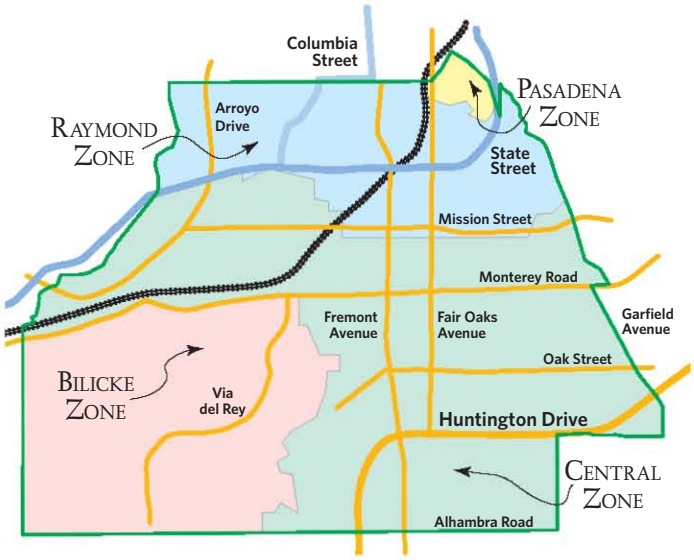
Potable Water System

The City's water distribution system is separated into five pressure zones and includes about 85 miles of pipeline ranging from 2 to 24 inches in diameter, five storage reservoirs, two elevated tanks, and six booster stations. The City obtains water from four groundwater wells, one treated imported water connection with Metropolitan Water District of Southern California (MWD), and several (emergency) interconnections with neighboring utilities, including Pasadena, Alhambra, and California American Water Company (CalAm). The City's water system has a significant portion of old pipes, with roughly 67 percent installed prior to 1950, that will need to be incorporated in a prioritized rehabilitation and replacement (R&R) program as part of this IWWRMP.

Sewer Collection System

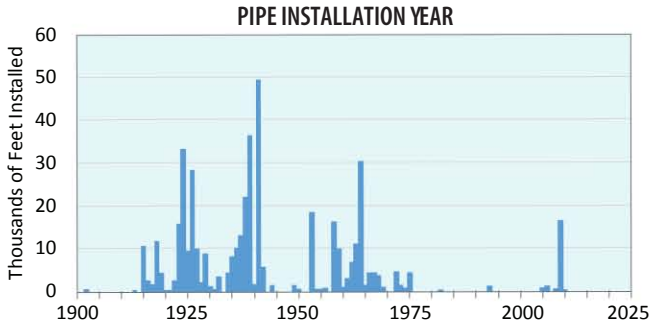
The City's sewer collection system consists of about 58 miles of pipeline ranging from 8 to 18 inches in diameter. The City has two lift stations, but does not own or operate any wastewater treatment facilities as the City's wastewater is conveyed to the Whittier Narrows Water Reclamation Plant (WRP) and the Joint Water Pollution Control Plant of the Sanitation Districts of Los Angeles (LACSD) via the County's trunk sewers.

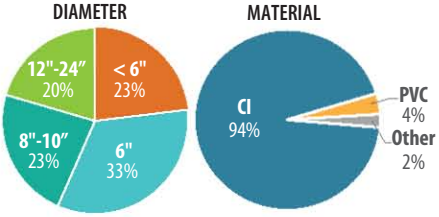
Approximately 60 percent of the City's sewer mains have been rehabilitated between 2014 and 2017 following an extensive CCTV inspection of the City's sewer network in 2009-2011. Since this major rehabilitation effort, the City's sewer system performance has significantly increased, eliminating historic sewer overflows



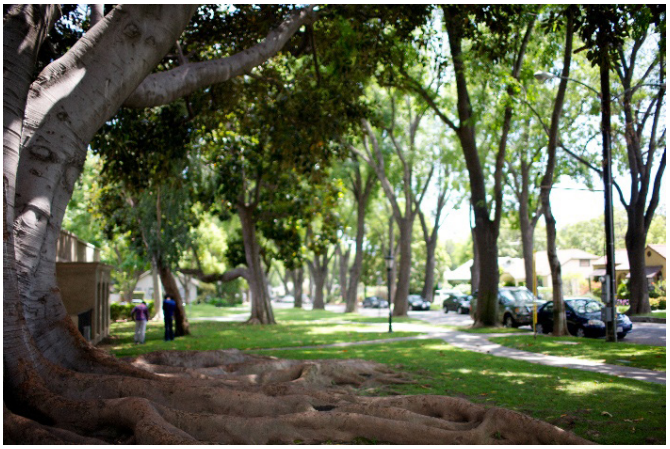
Despite the relatively small service area, the City's distribution system is relatively complex and separated into five pressure zones to accommodate the wide range in topography.

caused by sewer defects and root intrusion. The most recent Sewer System Management Plan (SSMP) was completed in 2009 and needs to be updated to reflect the extensive system upgrades as part of this IWWRMP. In addition, the City needs a hydraulic model of its sewer collection system to analyze hydraulics and identify capacity improvement needs.





The majority of the City's water system was constructed before 1950 and has mostly CI pipelines with diameters of 6 inches and smaller.

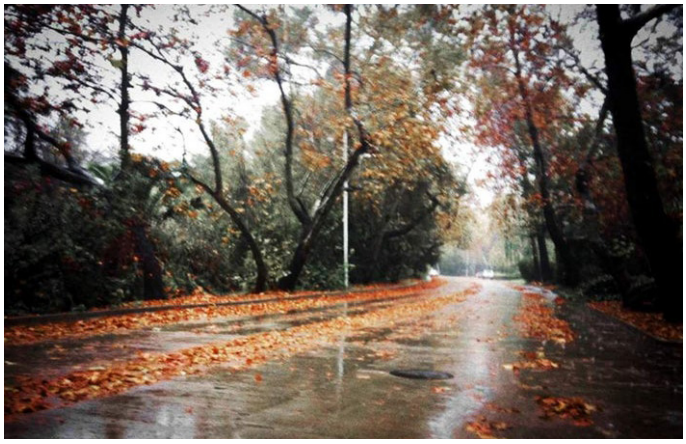


The City's abundance of beautiful, mature trees poses root intrusion challenges for the aging sewer and storm drain pipelines.

Stormwater Drainage System

The City's stormwater and urban runoff is collected and conveyed through a network of streets, catch basins, and a 100-percent separate stormwater drainage system to various receiving water bodies. This stormwater drainage system is maintained by both the City and the Los Angeles County Flood Control District (LACFCD).

To reduce discharge of pollutants and meet compliance targets of the MS4 Permit, the City participated in the Upper Los Angeles River Enhanced Watershed Management Plan (EWMP), which identifies regional stormwater capture and recharge projects. As implementation of these regional projects will likely result in changes of dry and wet weather flows, the City needs to develop a GIS-based map of the existing stormwater drainage system as part of the IWWRMP. Once the system is digitized and imported into a modeling platform, the City can evaluate potential hydraulic changes, capacity constraints, improvement needs, and opportunities for innovative stormwater management strategies.



Localized flooding during rain events is one of the storm drainage challenges in the flat portions of the City.

Recycled Water System

The City is a member agency of the Upper San Gabriel Valley Municipal Water District (Upper District), the regional recycled water supplier. However, the City currently does not use recycled water in its service area due to the absence of dedicated infrastructure to convey recycled water to supplies to the City. The closest recycled water pipeline of the Upper District is located in the Whittier Narrows area, roughly 10 miles from the City's boundary. However, the City of Pasadena is considering serving recycled water to their Glenarm Power Plant, located immediately north of South Pasadena's city boundary. The IWWRMP will evaluate the feasibility of various recycled water system configurations in case a recycled water supply connection can be made with Pasadena or Upper District.

Garfield Park is one of the potential anchor recycled water customers that could be served if recycled water would be available at Pasadena's Power Plant, less than a mile away.

PROJECT OBJECTIVE

The objective of this project is to prepare an integrated water and wastewater resources management plan that will provide a comprehensive roadmap of both near-term and long-term system recommendations. This roadmap will include capital improvements and operational strategies to help the City prepare for and adjust to future changing conditions. Carollo's integrated planning approach will result in a holistic "One Water" vision for the City that considers the inter-relationships between the various water systems and identify multi-benefit projects that provide more cost-effective system enhancements for the City and its customers.

PROJECT APPROACH

Based on our project understanding, we have identified key project challenges and objectives. We then tailored an approach and work plan to address these objectives to meet your unique project needs. The key components of our project approach are:

1. An **integrated "One Water" planning approach** that results in a holistic system evaluation and comprehensive prioritized roadmap with both near- and long-term improvements.
2. A **comprehensive water distribution model update and hydraulic analysis**, leveraging in-depth system knowledge
3. Utilization of artificial intelligence tool from Fracta to develop a **risk-based water pipeline R&R program**
4. Development of an **accurate sewer model based on rigorous calibration criteria** and state-of-the art tools
5. Efficient development of recycled water alternatives to make informed decisions when future water supply opportunities arise
6. The **prioritization of most beneficial stormwater management opportunities** to promote effective utilization of the new stormwater parcel tax funds.
7. Development of a **dynamic CIP planning tool** that puts the City the driver's seat.
8. A **comprehensive IWWRMP document** to promote clear and defensible decision-making.

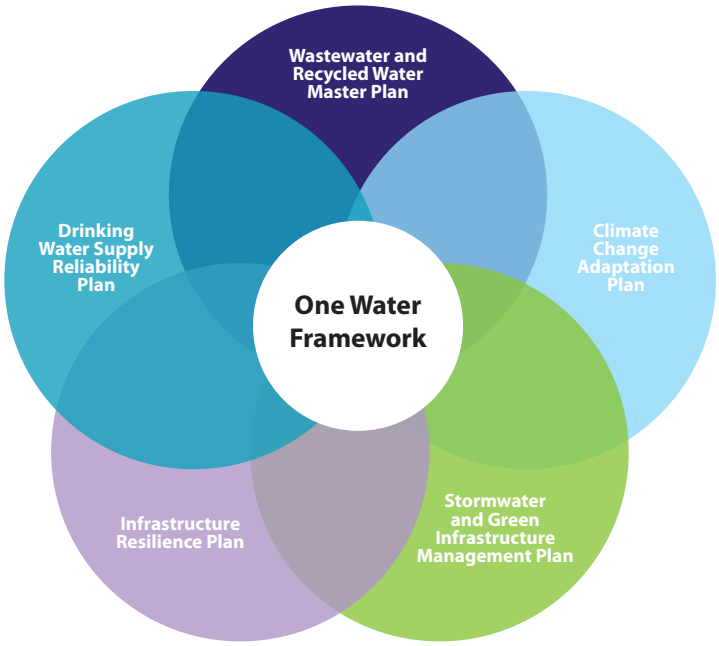
The Right Planning Horizon

The IWWRMP will include both near-term project recommendations for a 5- or 10-year planning period, as well as, a long-term capital improvement program beyond this horizon for a period of at least 25 years. To streamline this effort with the upcoming 2020 Urban Water Management Plan (UWMP), the long-term planning horizon is recommended to be year 2050. This allows any upcoming Water Supply Assessments (WSAs) between the 2020 and 2025 UWMP to utilize the demand forecast prepared as part of this WS&FMP as it would then meet the minimum requirement of a 25-year forecast.

1. Integrated "One Water" Planning Approach

Carollo's integrated "One Water" planning approach results in a holistic system evaluation and a comprehensive prioritized roadmap with both near- and long-term improvements. Our integrated planning approach involves close coordination of the potable water, wastewater, stormwater, and recycled water systems planning efforts to deliver a consistent and sound IWWRMP document.

As the national leader in One Water Planning, Carollo understands that "integration" is so more than just a concurrent planning of several utility systems by the same consultant. A truly integrated, comprehensive facilities master plan highly contrasts with multiple master plans prepared in isolation, and should not merely result in a single planning document. For example, the One Water paradigm embraces consideration of regional solutions that require institutional collaboration (e.g., for the City's recycled water and stormwater management solutions). In addition, we will develop a common set of planning criteria and align the various system evaluations to identify optimized multi-benefit solutions and proposed CIPs to maximize the public's investment.

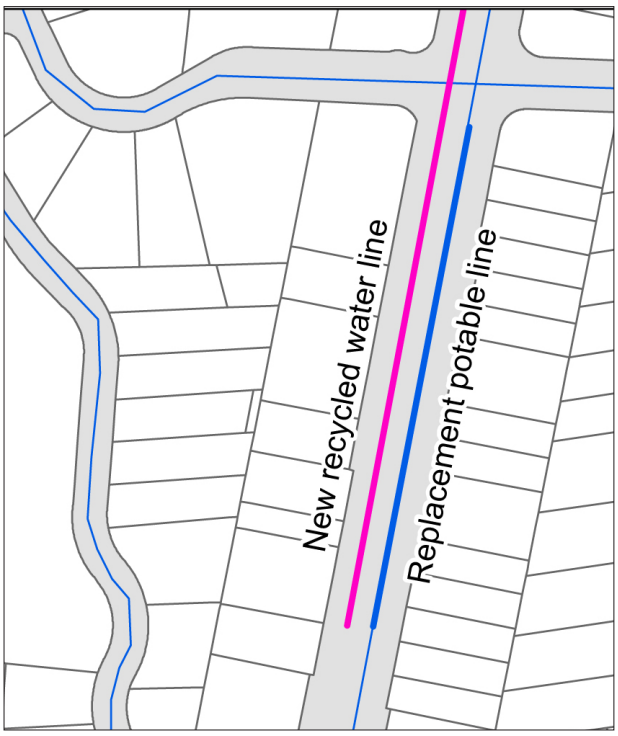


The City's IWWRMP scope already addresses many aspects of the One Water Framework as defined in the Blue Print for One Water (WRF, 2017). Carollo is THE team to help the City embrace this new paradigm shift in integrated planning.

Our proposed project manager, Inge Wiersema, is Carollo's National One Water Director. She is excited to bring lessons learned on integrated and One Water planning from around the country to her hometown, South Pasadena.

Carollo brings a long history of developing comprehensive integrated master plans for water, sewer, recycled water, and/or stormwater systems. Some examples of integrated master plans that we recently prepared for agencies similar to the City of South Pasadena are the water/sewer/storm/recycled water master plan for the cities of Oxnard, Glendale, Hesperia, Colton, Banning, and Morro Bay. Some other examples of integrated master plans prepared by our proposed team members are described in the references section of this proposal. Based on our experience, we know exactly where information between the different plans needs to be coordinated to efficiently deliver sound planning documents based on consistent planning assumptions and that result in cost savings. Some of the key project tasks that need to be closely coordinated are:

- **Water demand and wastewater projections.** It is imperative that potable demand and sewer flow projections be based on the same growth projections, anticipated land use changes, and water conservation assumptions. Specifically, indoor conservation measures, as now mandated to reach 50 gpcd by 2035, affect sewer generation flow rates. Additionally, any potable water demand offsets of potential use of recycled water needs to be accounted for. Carollo uses a demand and flow forecasting tool that accurately accounts for these interrelationships to achieve a sound planning basis for all components of the IWWRMP.
- **Hydraulic model updates.** A benefit of developing an integrated facilities master plan is that the hydraulic models and future scenarios can be constructed using similar database structures with consistent nomenclature, similar planning horizons, and identical data sources. The City currently uses H2OMAP Water modeling software for the water model. We recommend to convert that to InfoWater, the current standard modeling platform from Innovyze, and use InfoSWMM for the new wastewater collection model. InfoWater and InfoSWMM can also be utilized to construct recycled water and stormwater drainage models, if desired in the future. These GIS-based tools have similar graphic user interfaces and much of the same functionality, which makes it easier for City staff to use and maintain the models. This IWWRMP effort will provide consistency and coordinated planning through all utility systems.
- **CIP development and project phasing.** Another important step is the coordination of the phasing of proposed potable water, sewer, storm drain, and recycled water projects such that the CIP does not call for constructing different lines in the same street in 2 or 3 consecutive years. Correlating project phasing and even pipeline alignments can avoid unnecessary construction burden to the City's customers and save cost. We will also work with City staff early in the project to establish consistent cost estimating assumptions that reflect the cost of doing business in South Pasadena accurately and account for challenges like labor cost, tree-lined streets, and limited space for staging construction materials. Last, but not least, we coordinate the proposed timing of CIP projects where possible to achieve a CIP with balanced cash flow, by avoiding large annual fluctuations in the combined CIP expenditures.



Carollo will coordinate phasing of projects to avoid unnecessary construction disruption and minimize costs.

2. Comprehensive Water Model Update and Hydraulic Analysis

The Carollo team has the unique ability to leverage our in-depth water system knowledge from previous work in 2012, when our team developed and calibrated the City's first hydraulic model. Carollo has competed numerous fire flow analyses for developments and other modeling requests since 2012, and brings an in-depth understanding of the water system hydraulics that will allow our team to hit the ground running on the water model update and comprehensive hydraulic analysis.

Just like we did in 2012, Carollo will provide our own remote pressure loggers free of charge to achieve more accurate calibration results.

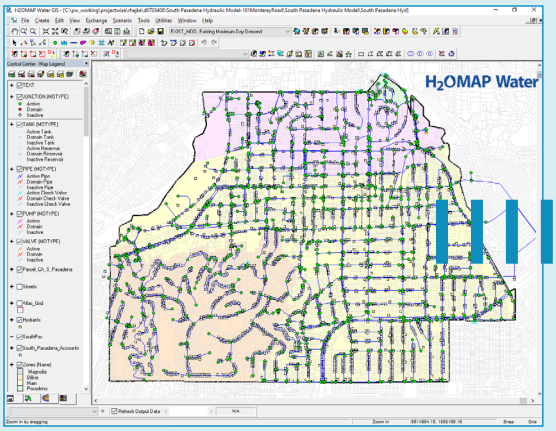
The first step of the water system analysis is to project water demands to the proposed planning horizon of 2050, which will allow the City to use the IWWRMP forecast for the 2020 Urban Water Management Plan to save time and cost on that effort next year. With the adoption of the State's new water conservation measures (SB 606/ AB 1668), the City will need to achieve approximately another 10- to 15-percent water conservation by year 2030 to meet the residential indoor demand target of 50 gpcd. The reduction of indoor demands will also be used to prepare the City's sewer flow forecast.

As part of the IWWRMP, we propose to conduct a model validation upon an update of the distribution network and input of current water demands using geospatial allocation of billing records. Just like in 2012, we will use Carollo's own remote pressure loggers to supplement SCADA data and fire flow test results. This method has proven very successful in the past when we discovered a closed valve on Indiana Street that was never opened again after the completion of the Gold Line construction. To our knowledge, Carollo is one of only two consulting firms in Southern California that owns these loggers and lends them to utilities for free to achieve more accurate model calibration results.

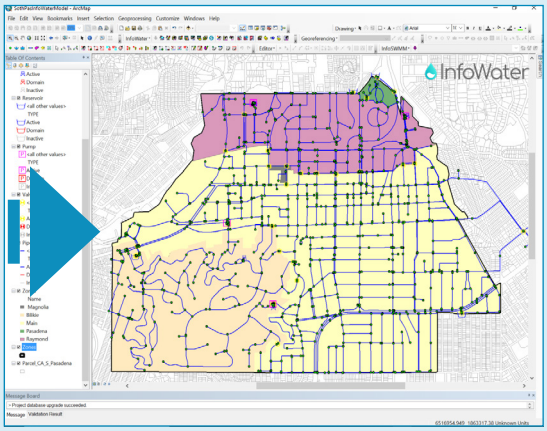
Our proven 4-step model calibration and validation process results in an accurate model that can be trusted for system analysis and sizing of improvement projects. Our team is dedicated to closely work with the City's operations staff like we have done in the past to utilize their wealth of system knowledge. Our collaborative approach to work with both engineering and operations also promotes confidence in the model as a useful tool for future use. Once the model validation results are approved by City staff, we will use the model to conduct typical hydraulic fire flow and capacity analysis under a variety of demand conditions.

The updated model database will also be used as the basis for the development of a prioritized pipeline replacement program. Rather than limiting this to typical end of useful life (EUL) indicators, such as pipeline age, material, and previous leakage history, we propose to use state-of-the-art technology that uses artificial intelligence to consider many other factors to predict risk of failures to help prioritize the water main replacement program (see Item #3 on the following page). As the City's average water system has a significant amount of old pipes, having a defensible method to prioritize replacements is critical!

H2OMap Water Model



InfoWater Model



Carollo is very familiar with the City's water distribution layout and hydraulics due to our team's water distribution model development and calibration in 2012 and involvement with various on-call modeling analysis in the past 7 years. To hit the ground running, we have already converted the City's model from H2OMAP Water to InfoWater, as H2OMAP Water has become obsolete.

3. Risk-Based Water Pipeline Replacement Prioritization

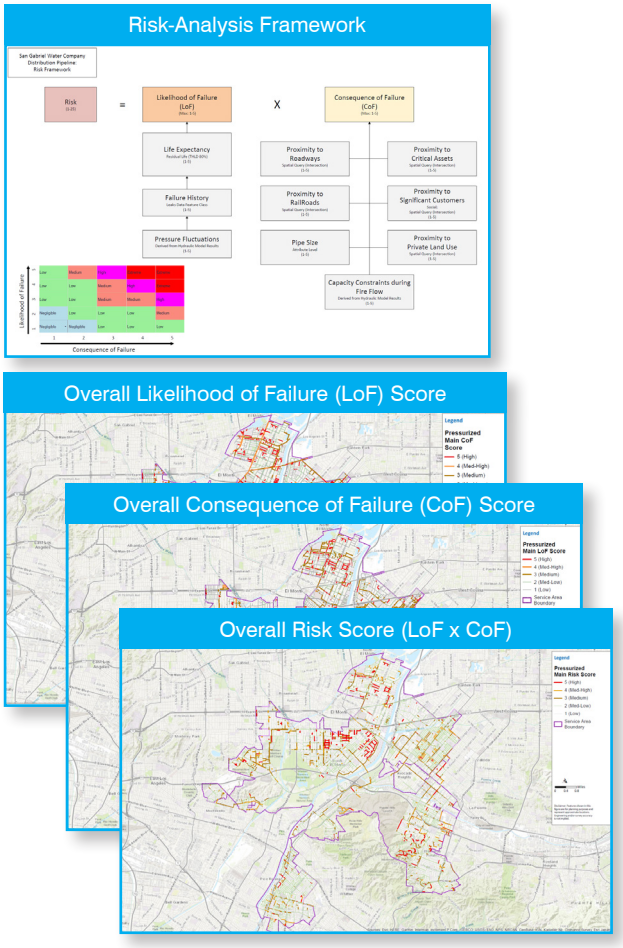
Although the City has already replaced nearly 60 percent of its sewer collection system in the past decade, the City's potable water system is quite old, and much of the infrastructure is nearing the end of their useful life. Rehabilitation and replacement (R&R) of aging infrastructure, specifically pipelines, are an important part of this IWWRMP. However, we know that age itself is not sufficient grounds for replacement and renewal. For this reason, we have included an optional task to use a risk-based approach that considers a variety of factors that can be spatially analyzed in GIS to help the City prioritize water pipeline replacements.

We will first develop a risk analysis approach with recommended risk factors, scoring, and weighting for each of the City's potable water pipeline segments. The risk analysis approach will be reviewed and finalized with input from City staff prior to the risk model analysis. The risk-based approach will consider the likelihood of failure (LoF) and consequence of failure (CoF) for each pipeline segment in the modeled pipelines.

Factors that could potentially be taken into account for the LoF analysis are pipe material, pipe age, historical leaks, maintenance/performance history, and soil type. Factors that could potentially be taken into account for the CoF analysis are the size of pipe, potential damage to structures, impacts to critical facilities (schools, medical facilities, and other community facilities), proximity to major roadways, railroad, or environmentally sensitive areas.

The LoF and CoF scores can be combined to calculate a risk factor for each pipeline segment. The findings of this risk analysis will be summarized and GIS maps for each of the selected parameters. The overall risk scores can then be used through a more manual manipulation process that combine individual pipeline replacement projects with similar risk scores. These logically grouped R&R projects are then prioritized based on the average risk in the master plan CIP.

Carollo has completed several risk-based pipeline R&R plans using InfoMaster, which is a tool that can be linked to the InfoWater Model as both packages are from Innovyze. However, Carollo has teamed with Fracta, a company that offers a similar Artificial Intelligence Tool with both LoF, CoF, and Business Risk Exposure (BRE) analysis capability to accurately predict first time and repeat main failures to help prioritize the water pipeline replacement projects. A rough estimate of this optional task is included in our fee estimate. However, our proposed scope and fee breakdown will need to be refined upon project selection and detailed review of available GIS data. As described in our scope of work, we propose to utilize Fracta's tool in two phases. During the first phase, the LoF will be determined for the City's entire water system. During Phase 2, this can be expanded to also include the CoF and BRE for each pipeline to develop a risk-based prioritized water main replacement CIP.



Carollo offers to conduct a risk-based analysis of the City's potable water pipelines to help prioritize replacements for the next decades using tools like InfoMaster or Fracta, following our same approach for two recent master plans completed for San Gabriel Valley Water Company.

4. Accurate Sewer Model Based on Rigorous Calibration Criteria

Carollo will develop a brand new collection system model utilizing the City's updated GIS database that was developed using the digital as-built drawings that were acquired after the completion of the significant sewer rehabilitation program that replaced more than 34 miles (nearly 60%) of the City's 58-mile sewer collection system in 2014-2017. Once the sewer GIS data is imported and refined in InfoSWMM modeling software (or similar), we will assign sewer generation flows based on fixture discharge rates and trouble shoot any remaining model run errors or warnings. The most important element to develop an accurate model that the City can trust to make important and often costly CIP decisions, is the model calibration phase.

The selection of flow monitoring locations is critical to the ultimate model calibration accuracy. Similar to our approach for the water modeling and analysis, we will work closely with the City's operations staff to develop and calibrate the sewer model, including the selection of flow monitoring sites to identify areas with 1) historical CSOs, 2) known capacity deficient areas, and 3) I/I isolations.

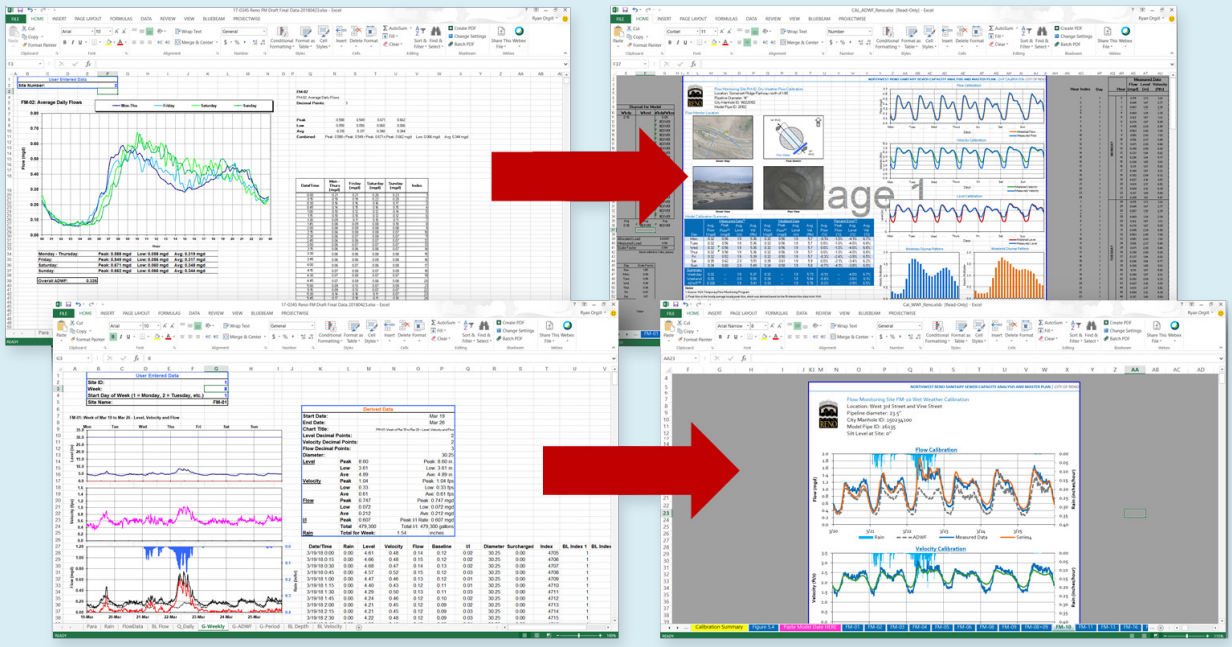
As highlighted in our subconsultant experience section of this proposal, we have teamed with V&A Consulting Engineers to conduct this field work. Carollo and V&A have collaborated on delivering more than 50 projects in the last 15 years and have developed an approach to flow monitoring that delivers quality, reliable data to seamlessly integrate with Carollo's modeling templates providing efficient and reliable analysis results.

Robust Model Calibration Builds Confidence in Modeling Results and CIP Recommendations

The Carollo team will spend considerable time making sure that the model accurately represents the way your system responds to wet weather, how your lift stations operate, and the level of flows that drive pipeline sizing and capacity projects. The most important element of model development is calibration, and not only calibration to flow, but calibration to hydraulic grade. Pipeline capacity analysis, and improvement sizing is based on level in the pipe, not just flow. Carollo is one of the only consulting firms to make level calibration a standard element of model development, which is one of the most important factors contributing to model accuracy. Without calibrating to flow levels, the City would not obtain an accurate view of system performance and required pipeline sizing.

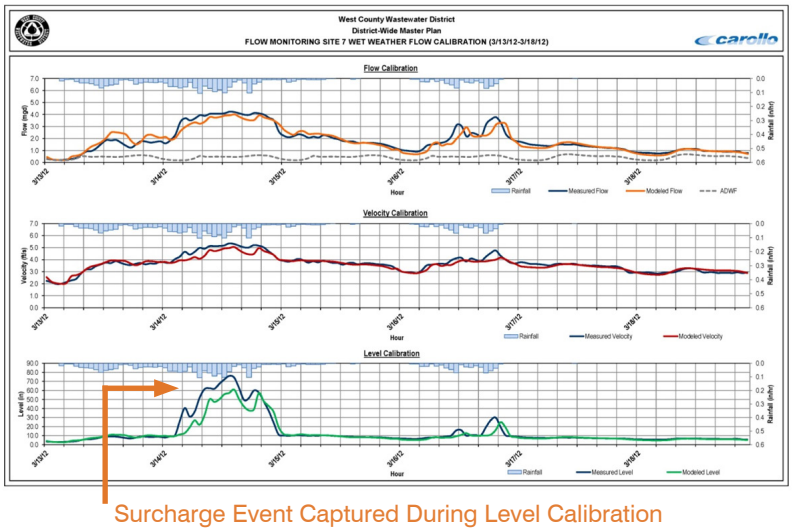
V&A Flow Monitoring Electronic Deliverable

Carollo Hydraulic Model Calibration Templates



Carollo's long-term collaboration with V&A has allowed for the efficient development of seamless flow monitoring and modeling tools. This integration results in increased efficiency and quality control.

Once we have confirmed that the model accurately simulates the flows in the City's collection system, we are ready to use the model for analysis and system evaluation. System improvements will be defined and prioritized in the phased CIP, including a R&R program for the remaining 40 percent of pipelines that were not replaced in the last decade. We will utilize the City's CCTV data and conversations with operations staff on issues observed in the field to prioritize the remaining replacement needs. Last, but not least, the sewer model update and analysis will also provide all the necessary information to update the City's latest SSMP, which was completed in 2009 and is due for an update.



Surcharge Event Captured During Level Calibration

By calibrating to level and velocity data, we will provide you with a model where you can have confidence in the results—ultimately it will help you reduce costs by not oversizing capital projects.

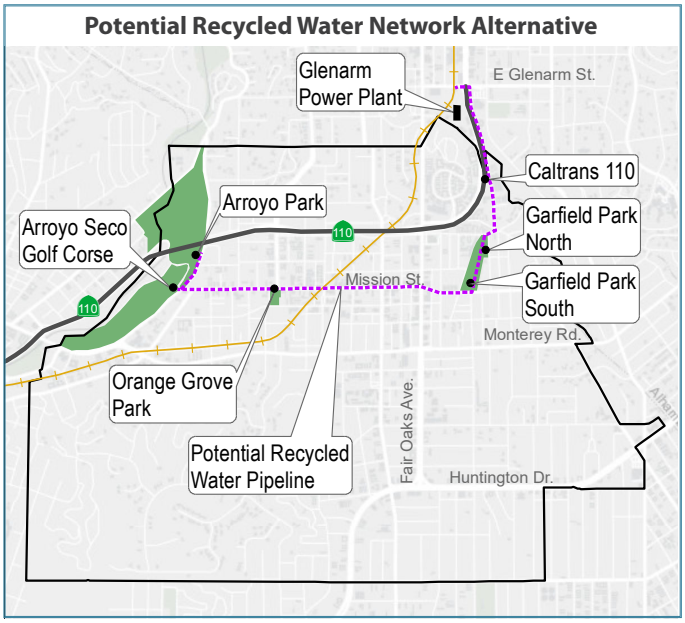
5. Efficient Recycled Water Feasibilty Analysis

The Carollo team will build upon our extensive knowledge of the recycled water systems in the region from previous and ongoing recycled water studies, such as recycled water planning work for Upper District, City of Glendale, and City of Pasadena, as well as the current work on the recycling program at the LA-Glendale WRP. We understand the interrelationships between these systems and the regional constraints to get a recycled water supply to the City of South Pasadena. In addition, we bring intimate knowledge about the potential recycled water customer base within the city boundary to quickly develop and evaluate the feasibility of potential recycled water system configurations.

Due to the distance of the nearest recycled water line from Upper District (≈ 10 miles) and their ongoing Indirect Reuse Replenishment Project (IRRP), it is unlikely that Upper District will expand its recycled water distribution system much closer towards South Pasadena. However, Pasadena Water and Power (PWP) may construct a recycled water pipeline to bring recycled water from the LA-Glendale Water Reclamation Plant (WRP) to the Glenarm Power Plant, or alternatively construct a wastewater scalping plant to serve this power plant with recycled water.

As shown on the adjacent figure, the City could potentially extend a recycled water pipeline from the Glenarm Power Plant to bring recycled water to serve irrigation demands of Caltrans along the 110 Freeway, Garfield Park, Orange Grove Park, and ultimately the Arroyo Seco Golf Course and Arroyo Park.

Carollo will quantify the potential recycled water demands of these customers and then build a simple hydraulic model to size the backbone system to size pipelines. We will then prepare cost estimates to conduct a feasibility evaluation of various recycled water system configurations in case a recycled water supply becomes available within reasonable distance. The cost of each alternative will be expressed in $/acre-foot to provide a comparison basis with the projected future cost of groundwater and imported water supply from MWD at the time the City may be able to purchase recycled water from PWP or Upper District.



Our team will build upon our extensive local knowledge and familiarity of reuse opportunities to develop a quick recycled water feasibility assessment for the City to consider a variety of potential options such as the pipeline shown.

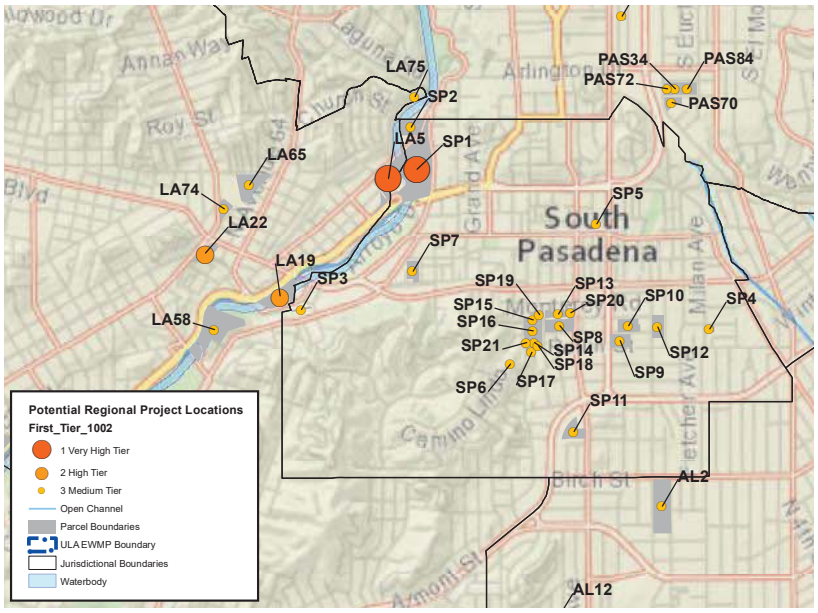
6. Prioritization of Stormwater Project Opportunities to Utilize New Parcel Tax Revenues Effectively

Now that Measure W has passed, Los Angeles County will have a sustainable revenue source that will generate approximately $300 million annually. The purpose of this new parcel tax is to fund stormwater and urban runoff management projects that provide water quality, water supply, and community benefits. The City will receive approximately $0.26 million per year to fund its stormwater and urban runoff management projects within its jurisdiction to address water quality objectives as established in the Los Angeles County Municipal Separate Storm Sewer System (MS4). These funds can also be utilized to fund operation and maintenance (O&M) cost.

Carollo's stormwater master plan task lead, Bronwyn Kelly, was the technical lead on the Upper Los Angeles River (ULAR) Enhanced Watershed Management Plan (EWMP) and thus brings in-depth knowledge to the City regarding this regional plan that has identified 20 projects within the City's boundary.

As part of the IWWRMP, Bronwyn will lead the analysis to help prioritize these 20 regional projects by assessing a variety of potential multi-benefits, such as:

- Water quality
- Water supply
- Flood risk mitigation
- Climate change resiliency



The Upper LA River EWMP has identified 20 projects within the City's boundary to improve water quality, water supply, and community benefits. Carollo will help prioritize implementation to use the new Measure W funding in the most beneficial manner.

- Habitat and ecosystem improvement
- Green and open space creation
- Heat island effect reduction

As part of the IWWRMP, Carollo proposes to identify the associated benefits using a qualitative method, similar to what our team is currently using for the King County Clean Water Plan. This method is easy to understand, fairly quick to execute, and avoids the risk of having to justify and explain numeric project scoring. We will work with City staff to assign benefit scores and then conduct a multi-benefit ranking to prioritize projects that achieve the most benefits for the investment.

POTENTIAL PROJECTS AND PROGRAMS	LOAD REDUCTIONS			THREAT REDUCTIONS				
	Pollutant A	Pollutant B	Pollutant C	Edible fish	Swimming	Shellfish harvesting	Chinook salmon	Orca
Option A	●	○	○	○	●	●	○	○
Option B	○	●	○	●	○	○	◒	◒
Option C	◒	○	●	◒	○	◒	◒	◒

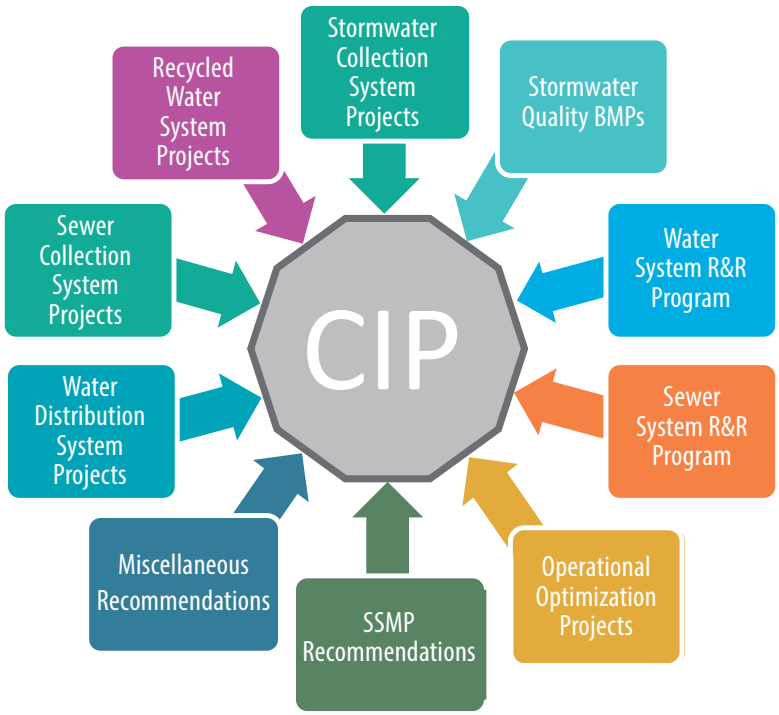
SYMBOLS: ● High reduction ◒ Medium reduction ○ Low reduction

Our proposed qualitative multi-benefit identification and ranking approach will help prioritize the nearly 170 stormwater projects in an efficient manner. This process is currently used for the Water Quality Benefits Evaluation of King County, Washington.

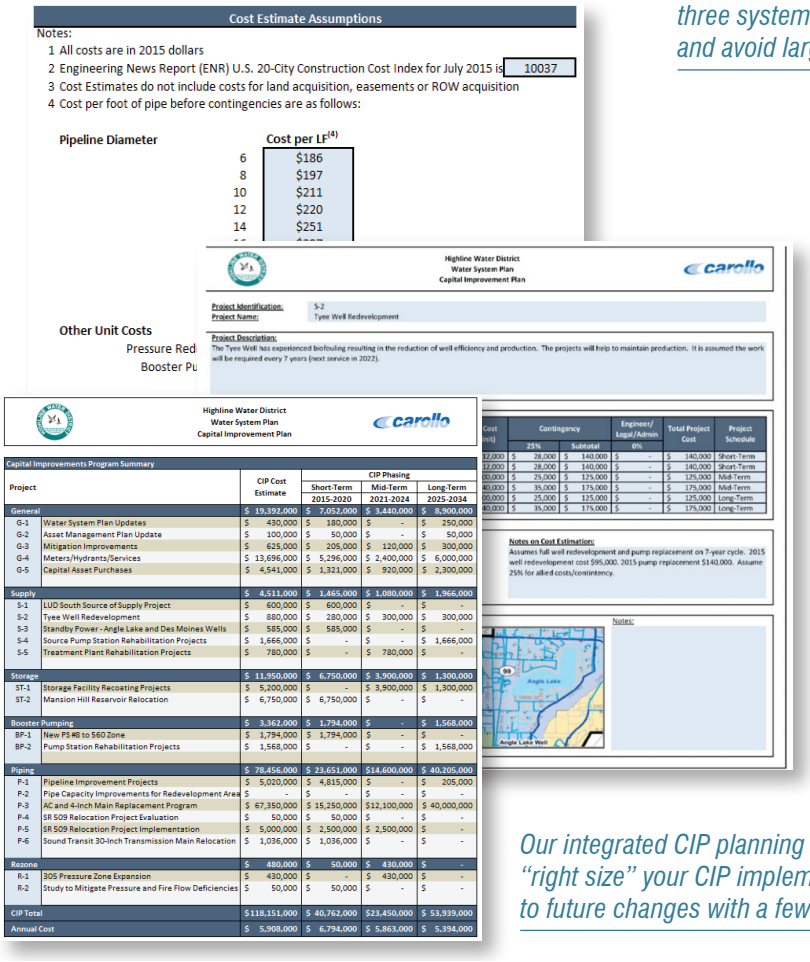
7. Development of a Dynamic CIP Planning Tool that Puts the City in the Driver's Seat

The CIP needs to identify what projects are needed, where they should be located, and why they are needed. Identification of trigger points is also critical to understand the basis of sizing and timing. The development of a comprehensive CIP is much more than just a compilation of projects as the phasing needs and priorities are not necessarily are going to align with the City's available CIP cash flow. Further complicating the phasing equation is the fact that no matter how accurate the IWWRMP is today, change in the future is a certainty, and that change will affect future CIP decisions.

To allow the City to quickly make updates to adapt to future conditions after the plan is completed, Carollo will deliver our dynamic CIP planning tool as part of our final work product. This tool puts the City in the driver's seat beyond the completion of the IWWRMP!



Our comprehensive CIP is more than a compilation of multiple project categories. We will adjust project phasing, pipeline alignments, and look for opportunities to share sites between the three systems to save cost, minimize construction disruptions, and avoid large fluctuations in capital expenditures.



Cost Estimate Assumptions

Notes:
1 All costs are in 2015 dollars
2 Engineering News Report (ENR) U.S. 20-City Construction Cost Index for July 2015 is 10037
3 Cost Estimates do not include costs for land acquisition, easements or ROW acquisition
4 Cost per foot of pipe before contingencies are as follows:

Pipeline Diameter	Cost per LF[4]
6	$186
8	$197
10	$211
12	$220
14	$251

Other Unit Costs
Pressure Red
Booster Pu

Highline Water District
Water System Plan
Capital Improvement Plan
carollo

Project Identification: S-2
Project Name: Tyee Well Redevelopment

Project Description:
The Tyee Well has experienced biofouling resulting in the reduction of well efficiency and production. The projects will help to maintain production. It is assumed the work will be required every 7 years (next service in 2022).

Highline Water District
Water System Plan
Capital Improvement Plan
carollo

Capital Improvements Program Summary

Project		CIP Cost Estimate	CIP Phasing Short-Term 2015-2020	Mid-Term 2021-2024	Long-Term 2025-2034
General		$ 19,392,000	$ 7,052,000	$ 3,440,000	$ 8,900,000
G-1	Water System Plan Updates	$ 430,000	$ 180,000	$ -	$ 250,000
G-2	Asset Management Plan Update	$ 100,000	$ 50,000	$ -	$ 50,000
G-3	Mitigation Improvements	$ 625,000	$ 205,000	$ 120,000	$ 300,000
G-4	Meters/Hydrants/Services	$ 13,696,000	$ 5,296,000	$ 2,400,000	$ 6,000,000
G-5	Capital Asset Purchases	$ 4,541,000	$ 1,321,000	$ 920,000	$ 2,300,000
Supply		$ 4,511,000	$ 1,465,000	$ 1,080,000	$ 1,966,000
S-1	LUD South Source of Supply Project	$ 600,000	$ 600,000	$ -	$ -
S-2	Tyee Well Redevelopment	$ 880,000	$ 280,000	$ 300,000	$ 300,000
S-3	Standby Power - Angle Lake and Des Moines Wells	$ 585,000	$ 585,000	$ -	$ -
S-4	Source Pump Station Rehabilitation Projects	$ 1,666,000	$ -	$ -	$ 1,666,000
S-5	Treatment Plant Rehabilitation Projects	$ 780,000	$ -	$ 780,000	$ -
Storage		$ 11,950,000	$ 6,750,000	$ 3,900,000	$ 1,300,000
ST-1	Storage Facility Recoating Projects	$ 5,200,000	$ -	$ 3,900,000	$ 1,300,000
ST-2	Mansion Hill Reservoir Relocation	$ 6,750,000	$ 6,750,000	$ -	$ -
Booster Pumping		$ 3,362,000	$ 1,794,000	$ -	$ 1,568,000
BP-1	New PS #8 to 560 Zone	$ 1,794,000	$ 1,794,000	$ -	$ -
BP-2	Pump Station Rehabilitation Projects	$ 1,568,000	$ -	$ -	$ 1,568,000
Piping		$ 78,456,000	$ 23,651,000	$14,600,000	$ 40,205,000
P-1	Pipeline Improvement Projects	$ 5,020,000	$ 4,815,000	$ -	$ 205,000
P-2	Pipe Capacity Improvements for Redevelopment Area	$ -	$ -	$ -	$ -
P-3	AC and 4-Inch Main Replacement Program	$ 67,350,000	$ 15,250,000	$12,100,000	$ 40,000,000
P-4	SR 509 Relocation Project Evaluation	$ 50,000	$ 50,000	$ -	$ -
P-5	SR 509 Relocation Project Implementation	$ 5,000,000	$ 2,500,000	$ 2,500,000	$ -
P-6	Sound Transit 30-Inch Transmission Main Relocation	$ 1,036,000	$ 1,036,000	$ -	$ -
Rezone		$ 480,000	$ 50,000	$ 430,000	$ -
R-1	305 Pressure Zone Expansion	$ 430,000	$ -	$ 430,000	$ -
R-2	Study to Mitigate Pressure and Fire Flow Deficiencies	$ 50,000	$ 50,000	$ -	$ -
CIP Total		$118,151,000	$ 40,762,000	$23,450,000	$ 53,939,000
Annual Cost		$ 5,908,000	$ 6,794,000	$ 5,863,000	$ 5,394,000

Cost (est)	Contingency 25%	Subtotal	Engineer/ Legal/Admin 0%	Total Project Cost	Project Schedule
12,000	$ 28,000	$ 140,000	$ -	$ 140,000	Short-Term
12,000	$ 28,000	$ 140,000	$ -	$ 140,000	Short-Term
00,000	$ 25,000	$ 125,000	$ -	$ 125,000	Mid-Term
40,000	$ 35,000	$ 175,000	$ -	$ 175,000	Mid-Term
00,000	$ 25,000	$ 125,000	$ -	$ 125,000	Long-Term
40,000	$ 35,000	$ 175,000	$ -	$ 175,000	Long-Term

Notes on Cost Estimation:
Assumes full well redevelopment and pump replacement on 7-year cycle. 2015 well redevelopment cost $95,000. 2015 pump replacement $140,000. Assume 25% for allied costs/contentency.

Notes:

Angle Lake
Angle Lake Well

This dynamic electronic CIP tool is developed in Microsoft Excel and compiles a master CIP from individual project sheets and a cost estimating assumptions sheet. The worksheets in the CIP tool are all interconnected and therefore easily updated. For example, when the timing, sizing, or cost estimate of a project is changed in the individual project worksheet, the Summary CIP automatically updates. The tool is also powerful during the annual budget cycle when the proposed project phasing may need to be modified to match annual cash flow and other funding sources revenues. We propose using our dynamic electronic CIP tool as a way to simply represent all of the projects.

Our integrated CIP planning tool allows you to "right size" your CIP implementation, and adjust to future changes with a few simple mouse clicks.

8. Comprehensive Documentation Promotes Defensible Decision-Making

We have developed a project approach and expert master planning team that is focused on "getting-it-right." The IWWRMP will ultimately present the City with millions of dollars of proposed projects for future years, so it is imperative that the recommendations are based on sound data, an accurate hydraulic model, and comprehensive system analyses. Accurate planning means that properly sized projects can be completed at the right time and the right place. But just as important as the analysis is the documentation of findings and how they were developed.

Detailed Documentation

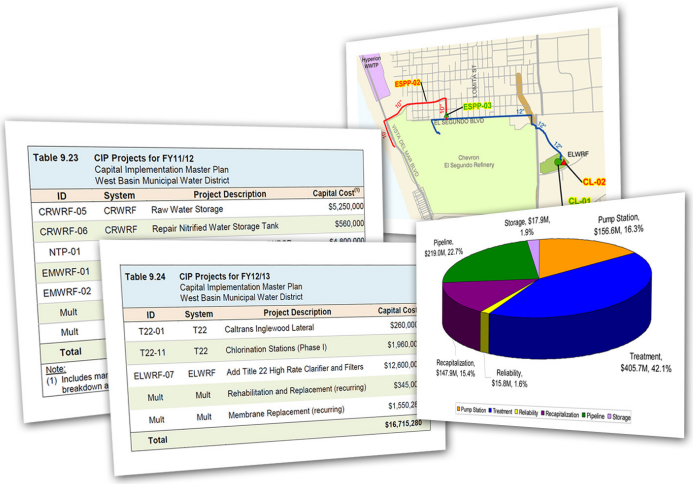
Carollo prides itself on the comprehensive nature of our water master plans because we know that this is the primary document that the City will use for CIP planning during the next decade. Our team will prepare a comprehensive integrated master plan with that long-term mindset. The goal is to provide the City with enough information to implement or postpone projects, even for City staff members that were not involved with the IWWRMP project and may pick up the document in future years.

Teamwork

During the project, we need to work closely with City staff to obtain an accurate understanding of your current systems, challenges, deficiencies, and objectives for the future. We expect that City staff will be intimately involved and conduct detailed reviews of the deliverables to make sure that the final model and plan are accurate. We embrace this teamwork approach and look forward being a partner with South Pasadena on this important project. Especially in the beginning stages, we will spend significant time working with City staff getting all the right information for the two hydraulic models and the stormwater drainage mapping. After that, the ball will be primarily in our court when we will conduct all the system analyses, identify deficiencies, and improvement projects. During the CIP development stage, we anticipate working closely together again to develop a master plan and CIP that the City can rely on when moving forward with project implementation.

Quality Control

Lastly, before we present our initial findings to you, we will complete our internal quality control process at the critical key milestones described in our scope of work. We have included two dedicated technical reviewers who are not involved in any other project tasks so that they will have a fresh look at the work during technical reviews. Our quality control procedures will make sure that the numbers are right before our work is submitted to the City to promote smooth reviews on your end. After all, it's our job to make your job easier, not harder.



Carollo prepared a very detailed CIP to accommodate the needs of various departments including upper management engineering, finance, and operations.

SCOPE OF WORK

Carollo has developed a detailed scope of work (SOW) that follows the scope of work of the RFP as closely as possible. However, we have added dedicated subtasks and grouped the elements slightly different to maintain a logical work flow. We have also added a dedicated task to clearly describe our anticipated level of effort for project management and meetings. Lastly, a number of optional tasks have been suggested throughout this scope of work to enhance the project in various ways. These optional tasks are summarized at the end of this scope of work document and are budgeted separately.

Task 1 – Project Management and Meetings

1.1 Project Management and Coordination

This task includes managing the project team to track time and budget, work elements accomplished, work items planned for the next period, manpower, scope changes, time, and budget needed to complete the project. This task also includes maintain a working project schedule and providing the City with monthly invoices and corresponding progress reports. The effort of this task is based on a 12-month project duration.

1.2 Project Meetings

The project will be launched at a kick-off meeting to confirm project objectives, introduce team members, establish communication lines, and discuss the project schedule and data collection list. In addition, a report draft outline will be prepared and discussed at the kick-off meeting to promote efficient report production. Carollo will prepare and submit meeting agendas and meeting notes.

In addition, Carollo will conduct up to 11 monthly progress meetings (12 in-person meetings total) to discuss ongoing status of the project and to present preliminary results from the analysis. Carollo will prepare and submit meeting agendas two days prior and meeting notes within 5 days post each meeting. Our project manager will attend all persons in-person, typically with the project engineer. Other staff members will attend in-person or by conference call on an as-needed basis.

1.3 Conference Calls/Webmeetings

Carollo schedule bi-weekly conference calls/web meetings to facilitate continuous project communications and move the project along. The duration of these conference calls are assumed to not exceed 1 hour, depending on project needs. Our proposed project manager will attend the majority of these webmeetings in-person, depending on the meeting topic. There will be no bi-weekly conference calls in weeks that overlap with project meetings. As shown on the project schedule, it is estimated that there will be up to 20 conference calls/webmeetings. The project manager and project engineers will attend all conference calls/webmeetings.

1.4 Public Meetings

Carollo's project manager, Inge Wiersema, and as-needed team members will prepare and give up to two (2) presentations to the City Council, city committees, or members of the public. Carollo's team will provide up to 60 hours of support services to prepare graphics for public meetings or workshops with City customers and stakeholders to present findings of this project.

Task 2 – Potable and Recycled Water Master Plan

2.1 Data Gathering

Carollo will coordinate with City staff to collect and review relevant documents, GIS data, operational records, billing data, production records, water supply information, existing asset management programs, and other pertinent data related to update of the IWWRMP. It is assumed that all this effort will not exceed more than 40 hours.

Carollo will prepare a prioritized data collection list to track the status of various documents. Review of the data collection list will a standing agenda item for all meetings/conference calls during the entire project.

2.2 Facility Inventory and Operational Assessment

Carollo will create a facility inventory of the City's potable water tanks, pump stations, control valves, and emergency interconnections. The facility inventory will consist of a listing of facility characteristics necessary for hydraulic modeling. Carollo will meet with City operations staff for up to four hours to understand the current operations of the water system.

2.3 Water Facilities Condition Assessment (Optional Task)

The task will also consist of a one-day site visit by four Carollo staff consisting of our project engineer along with three discipline engineers (structural, mechanical, and electrical) to assess the condition of key tank, booster pump, and groundwater well sites. The purpose of the visit it to evaluate the existing condition of the facilities and to make recommendations for modifications and improvements at the facilities based on visual inspection. Observations will be documented in a brief memorandum along with field photos and captions.

2.4 Update Water GIS Database

Carollo will update the City's water system GIS database with new construction and modifications made to the water system since the GIS was last updated. Carollo has budgeted 40 hours for this task.

2.5 Update Existing Water Model

Carollo will update the existing water hydraulic model to current conditions. Carollo proposes converting the model to InfoWater. Based on information gathered in Task 2.2, Carollo will use the GIS to update the model with newly constructed pipelines and facilities. Pump curves will be updated in the model based on recent pump tests. Elevations will be added where needed. Demands will be allocated to the model based on billing data, distributing the demands based on the location of the customers.

2.6 Water Model Calibration (Optional Task)

Carollo will calibrate and validate the model results to field data. Carollo will observe City staff conduct up to 10 fire flow tests for model validation. SCADA output data from the City's SCADA system (flows, pressures, and tank levels) will be collected. It is assumed that all fire flow tests will be completed in one day. The information collected from the fire flow tests will be utilized to validate the static and residual pressures and determine the roughness coefficients (c-factors).

In addition, Carollo will use SCADA data and remote pressure loggers to calibrate and validate the model for extended period simulation (EPS). The data will be collected for one week, such that one day can be selected for model calibration and field data from another day in the same week can be used to validate the model results.

Carollo owns 15 remote pressure loggers that will be made available to the City to supplement the SCADA data for the Fire Flow and EPS calibration. As proven during Carollo's later water model calibration for the City in 2012, these additional telemetry points in the distribution system will greatly enhance the model calibration accuracy by providing comparison data points away from the system facilities. If SCADA data is not available, data from paper circle charts or other telemetry devices will be utilized in lieu of SCADA data. It is assumed that City staff will provide this non-electronic telemetry data in electronic (spreadsheet) format.

Model calibration and validation results will be presented at one of the progress meetings included in Task 1. Once the City approves that the model calibration results are satisfactory, Carollo will use the model to conduct hydraulic system analysis as part of Task 2.11.

2.7 Population Projections

To project populations, Carollo will collect information on planned rate of growth from the City and from Southern California Association of Governments (SCAG). The population projections will be overlaid in GIS using land use data, aerial photography, pressure zone, and sewershed boundaries. For the water and recycled water master plans, population projections will be tabulated by pressure zone. For the wastewater master plan, the population projections will be tabulated by sewershed area.

Additionally, vacant parcels and parcels with potential for redevelopment will be determined based on conversations with City staff. These will be used to determine the locations of potential growth within the City. The information used for the analysis will be based on the 2015 Urban Water Management Plan and the City's General Plan. The planning horizon for this IWWRMP is assumed to be year 2050.

2.8 Potable Water Demand Analysis and Forecast

Carollo will analyze the City's existing water demand using historical billing data, historical water production records from calendar year 2019, SCADA data from calibration day, and sewer flow generation rates, to calculate the following factors:

- Total water use factor in gallons per capita per day (gpcd)
- Residential water use factor (gpcd)
- Average indoor:outdoor demand ratio
- Unaccounted-for-Water (%)
- Peak Hour Demand (PHD) peaking factor
- Maximum Month Demand (MMD) peaking factor
- Maximum Day Demand (MDD) peaking factor
- Minimum Day Demand (MinDD) peaking factor

First, Carollo will project the City's water demand reduction of existing residential customers due new water conservation legislation (SB 606 and AB 1688) passed by the state of California in 2018 that mandates reducing the per capita indoor water use to 55 gpcd by 2025 and 50 gpcd by 2035. These duties factors will be developed in order to project future water demands.

Second, the population forecast from Task 2.7 will be used to project future water demands for year 2050 with and without the potential potable water demand offset due to the use of recycled water (from Task 2.9 and Task 2.12). For conservative planning purposes, the demand projection without recycled water will be used for all system analyses.

2.9 Recycled Water Demand Estimates

Our team will identify the top 20 potential recycled water customers within the City's service area by evaluating the historical billing records, land use map, specific plans, aerial maps, and previous planning documents. Customers will be categorized based on user type such as landscape irrigation and commercial user types. Additional pickup customers (> 5 afy) will be identified using the geocoded irrigation accounts of historical billing data.

The historical potable water billing records will be used as a starting point to estimate the recycled water demands of potential customers. Based on customer type, a recycled water percentage will be applied to account for the approximate amount of potable water demand that can be converted to recycled water for each customer class. A customer table and map will be created with the potential recycled water customer data (typically 10 AFY or larger).

Carollo will use typical industry peaking factors for MinDD, MMD, and MDD demand conditions by customer class to estimate existing, near-term, and long-term seasonal recycled water demands.

2.10 Future Water Supply Strategy

Carollo will first review data concerning existing and future imported water, recycled water, and groundwater recharge plans from USGMWD, Main Basin Watermaster, MWD, and neighboring water agencies (Pasadena, Glendale, etc.). Then, the existing water supply mix (year 2019), relevant historical trends, and existing water supply cost by source will be summarized and described. Water quality descriptions will be limited to summaries readily available in the City's most recent annual water quality report.

Second, future opportunities for changes in the City's water supply mix will be identified and summarized. This will include a description of:

- Upper District's Recycled Water storage and recovery program;
- Potential stormwater capture and groundwater recharge (from Task 3.3);
- Historical groundwater level changes in the Main Basin;
- Anticipated future trends in energy pricing;
- Partnership opportunities with neighboring water agencies; and
- Financial/grant opportunities

2.11 Hydraulic Water System Analysis

Carollo will use the hydraulic model to evaluate the water system under a variety of demand conditions. Due to the build out nature of South Pasadena, model runs will either be run under existing or year 2050 demand conditions. Due to the new water conservation mandates, the existing demand are expected to govern system hydraulics under most conditions. System pressures, velocities, ability to deliver fire flow, storage tank and booster pump capacities will be evaluated with the hydraulic model.

The model will be run under the following scenarios:

- Average Day Demands (ADD)
- Maximum Day Demands (MDD)
- MDD plus Fire Flows
- Minimum Day Demands (MinDD)

Up to four GIS maps will be prepared to display modeling results and depict the location of capacity deficiencies. The model will then be used to size system improvements that address these deficiencies. Up to two GIS maps will be prepared to display the location and sizing of CIP recommendations. Land use and vacant parcel information in GIS, General Plan information, and/or conversations with City staff will be used to allocate future demands.

2.12 Future Recycled Water Opportunities

Carollo will evaluate two potential sources of recycled water (PWP and Upper District) for the City. Based on the list of potential recycled water customers identified in Task 2.4, Carollo will identify a potential recycled water system for the City. The unit cost of up to five alignment alternatives (expressed in $/acre-foot) will be compared to the cost of other potential supplies as determined in Task 2.7. Carollo will make recommendations for the next steps in developing recycled water opportunities.

2.13 Water System Replacement Plan

Carollo will develop an age-based water system facility maintenance and pipeline replacement and rehabilitation (R&R) plan. Pipeline age and material will be used to prepare end of useful life estimates for the entire water distribution system using GIS analysis. Water facility age and conversations with City staff will be used to make recommendations for the timing of replacement and maintenance for tanks, groundwater wells, booster pump stations, and pipelines. If the City elects to include Optional Task 2.3 (Water Facilities Condition Assessment) in the base scope of services, this information will also be utilized to refine the prioritization of water facility maintenance and replacement recommendations.

2.14 Water Main Risk Assessment (Optional Task)

As part of this Optional Task, Carollo will utilize the Fracta Platform to develop a risk-based pipeline replacement program, rather than the age based method used for Task 2.14. Using this artificial intelligence tool to assess the risk and condition of drinking water distribution mains. The Fracta Platform consists of four (4) applications LOF, COF, BRE, and JP. LOF predicts the statistical probability that a water main will fail in next 1, 3, and 5 years. COF determines the consequence, or severity, of a failure and quantifies the direct and indirect costs of the failure using a Triple Bottom Line monetized approach. BRE is the product the LOF probability and COF monetization; it provides an objective criticality score in financial terms for engineers, planners and finance professionals to use to make fast, accurate and affordable asset management decisions. Job Planner (JP) is a tool that aids in the selection of projects ("jobs") enabling comparison of different jobs to determine the most cost-effective plan of action.

We recommended a phased approach to utilize this Platform to develop LoF scores in Phase 1 and then progress to develop CoF and BRE scores in Phase 2. Carollo will then consolidate the scoring into practical pipeline projects by grouping major sequential pipeline segments or neighborhood scale areas of pipelines as replacement projects. The average BRE scores of each pipeline group will then be utilized in the phase Water System CIP (see Task 2.16).

2.15 Water System CIP

Carollo will develop planning-level unit construction costs for infrastructure components. These unit costs will reflect the most current market conditions in the region. In addition, a table with typical contingency and mark-up cost factors will be prepared. The cost development and amortization assumptions will be discussed and finalized with City staff prior to the development of the CIPs.

Carollo will develop planning-level cost estimates for each project which will be summarized in tabular format by project ID, facility type and by type of customers served (existing, near-, and long-term).

We will phase all projects and develop a schedule to implement the improvements required for existing (year 2020), near-term (year 2025 or 2030) and long-term (year 2050) conditions. The timing of CIP projects will be determined based on the projected water or recycled water demands that the project is located or serves and/or other project triggers.

2.16 Water Model Training

Carollo will provide a one day training course to the City in the use of the water system hydraulic model. Training materials will be developed by Carollo and provided for the City's use.

Task 3 – Stormwater Master Plan

3.1 Background Data Review

Carollo will review and summarize the County's existing stormwater system drainage dataset that was utilized for the preparation of the ULAR EWMP.

3.2 Existing Stormwater Program and Projects

Carollo will review County's existing stormwater/drainage system data and the latest City's stormwater project concepts that are currently under development pursuant to the Los Angeles County MS4 Permit requirements. This review will include projects that are intended to benefit the City, but may be located either inside or outside the City Limits. Based on review of the ULAR EWMP, it is assumed that the total number of projects is assumed to not exceed 30, which include the 20 projects within the City boundary.

Carollo will develop a list of identified deficiencies for existing and future conditions and then will develop recommended projects based on the criteria established in the previous Task. Carollo will present the findings at one of the progress meetings to discuss the deficiencies and the proposed mitigation projects. Carollo will work with the City to discuss the initial round of projects and alternatives. No hydraulic modeling will be performed for the stormwater system.

3.3 Regional Stormwater Capture and Recharge

Carollo will review the ULAR EWMP and the Rio Hondo/San Gabriel River EWMP for stormwater capture and infiltration projects proposed within the City limits. In addition, Carollo will identify future regional stormwater capture projects in the Main Basin/Raymond Basin that can contribute to groundwater recharge. The amount of the stormwater capture and recharge will be estimated using planning level assumptions from the ULAR EWMP.

3.4 Develop Stormwater GIS

Carollo will develop a GIS-based file of existing drainage system and stormwater mitigation projects. As part of this task, Carollo will update the City's existing stormwater system GIS database with new construction and modifications made to the water system since the GIS was last updated. Carollo has budgeted up to 80 hours for this task.

3.5 Stormwater Project Benefit Analysis & Prioritization (Optional Task)

As described in our project approach, Carollo proposes to identify the associated benefits of the stormwater management projects identified in Tasks 3.2 and 3.3 using a qualitative scoring method. This method assigns high/medium/low benefit scores for each project for the following categories:

- Water quality
- Water supply
- Flood risk mitigation
- Climate change resiliency
- Habitat and ecosystem improvement
- Green and open space creation
- Heat island effect reduction

We will work with City staff to assign and confirm the benefit scores and then conduct a multi-benefit ranking process to prioritize the projects. The goal of this task is to focus the City's funding (from Measure W) on the projects that achieve the most benefits for the investment. This stormwater project prioritization will also be used for the Integrated CIP in Task 5.3.

Task 4 – Sewer System Master Plan and SSMP

4.1 Review Existing CCTV Inspection Data

Carollo will review the condition assessment index scoring of the recently completed citywide CCTV inspection of pipeline that have not been replaced during the major R&R effort of 2014-2017. As 60 percent of the sewer system was replaced during this time, it is assumed that this CCTV review will be limited to about 32 miles of the City's sewer collection system. In addition, pipeline material, age, history of repairs, as-built drawings, and other digital files of the city's sewer system will also be reviewed.

Using this information, Carollo will conduct a desk top analysis of the City's pipelines to determine high priority areas for new CCTV inspection and/or replacement. The desk top analysis will also consider risk factors such as proximity to waterways, high traffic corridors, or public impact associated with the likelihood and consequence of failure. Carollo will develop a list of phased inspection priorities as well as a GIS map that show the high/medium/low priority areas. Carollo will also provide the City with a GIS shapefile with attribute tables with proposed inspection phase.

4.2 Update Sewer System GIS

Carollo will update the City's sewer system GIS database with new construction and modifications made to the sewer system since the GIS was last updated. Carollo has budgeted 40 hours for this task.

4.3 Develop Sewer System Model

Carollo will create a hydraulic computer model of the City's sewer collection system and its two lift station facilities. The model will consist of the City's trunk pipelines and pump stations. Model pipe data will be updated from the City's GIS data. The data will be imported into the model and the pipe connectivity for all nodes will be confirmed. The model will include pipes 8 inches in diameter and greater, plus 6-inch diameter collector pipelines as needed to reach each basin. Lift stations, wet well dimensions, pump curves and pump controls will be added to the model. The flows will be added to the model geographically by mini-basin for the selected planning periods.

4.4 Sewer Model Calibration (Optional Task)

Carollo will calibrate the model based upon the flow monitoring data at 5 locations, and rainfall data provided by the City. Carollo's subconsultant V&A will install 5 flow meters for up to 4 weeks in duration to monitor flows in the City's sewer system. Carollo will use the data to determine base sanitary flows estimated from existing land use to dry weather flow calculated through the flow monitoring for each basin. Existing land use and currently served areas will be used to estimate flow factors in gallons per acre per land use category. The flow factors will be customized to match the observed existing Average Dry Weather Flow (ADWF) and will be used to develop flow projections. The fee estimate included in this proposal includes one month of flow monitoring and the associated traffic control (including the engineered TC plans for each site).

Carollo will calibrate the model to dry weather flow conditions. Flow monitoring data will provide custom hourly diurnal curves that establish the daily flow patterns for each metering basin. Model parameters will be adjusted, as needed, to best match the flow monitoring and SCADA data.

Carollo will calibrate the model for wet weather conditions, if there are any storm events during the time the flow monitoring occurs. Rainfall information will aid in developing the required rainfall-derived infiltration/inflow (RDII) estimations that enter the collection system during a storm event. It is recommended that the use of a single calibration period incorporating a number of independent rainfall events should be considered whenever possible. Model results will be reviewed and adjusted, as needed, to best match the flow monitoring, rainfall and SCADA data. Flow and depth will be verified during calibration.

The flows from any unmetered basins will be developed as best as possible using a mass balance between the available existing meters, pump SCADA data, and the flow meter, and proportioned as best as possible based on development type, age, pipe material, and extent of collection system components.

4.5 Sewer Flow Projections

Carollo will develop base sanitary flows for both near-term (year 2025 or 2030) and long-term (year 2050) conditions. First, the existing wastewater flow generation rates of residential customers will be adjusted to account for the anticipated reduction in indoor water use due to new water conservation mandates defined in SB 606 and AB 1688 (50 gpcd by 2035). This rate will also be used for any future residential customer wastewater flow estimates. Secondly, Carollo will estimate infiltration and inflow projections for each sewer basin, and the developed I/I flow rates will be compared to I/I flow rate estimates per monitored basin.

Future flows, including base flows and I/I will be projected based on unit flow factors for each land use or customer type and I/I assumptions. Future flows will be developed for each sewer and pump station basin for the near- and long-term planning periods.

4.6 Sewer System Hydraulic Analysis

Carollo will perform a hydraulic capacity analysis under the design storm for each basin using the calibrated model, and projected peak flow rates and system expansion developed in Task 4.5. The analysis will be performed for near- and long-term scenarios, and will assist in identifying any system deficiencies and improvements required to resolve deficiencies.

Carollo will develop future hydraulic modeling scenarios that evaluate the impact of wastewater flows under each of the planning periods. Maps will be developed showing current and future deficiencies. Develop infrastructure recommendations to resolve deficiencies.

Carollo will evaluate the capacities of the lift stations for their ability to convey peak flows under firm capacity for existing and build-out conditions. Develop lift station recommendations to resolve deficiencies. Improvements will be sized for meeting year 2050 conditions.

4.7 Sewer System CIP

Carollo will develop planning-level unit construction costs for infrastructure components. These unit costs will reflect the most current market conditions in the region. In addition, a table with typical contingency and mark-up cost factors will be prepared. The cost development and amortization assumptions will be discussed and finalized with City staff prior to the development of the CIPs.

Carollo will develop planning-level cost estimates for each project which will be summarized in tabular format by project ID, facility type and by type of customers served (existing, near-, and long-term).

Carollo will phase all projects and develop a schedule to implement the improvements required for existing, near-term (year 2025 or 2030) and long-term (year 2050) conditions. The timing of CIP projects will be determined based on the projected wastewater flows that the project is located or serves and/or other project triggers.

4.8 SSMP Update

Carollo will update the City's Sanitary Sewer Management Plan (SSMP) and include this as an appendix to the IWWRMP report. The SSMP will be in compliance with all regulatory requirements, and will consist of the following elements:

a) Organization Structure in charge of Sanitary Sewer Overflows (SSOs)

b) Legal Authority

c) Operation and Maintenance (O&M)

- Preventative Maintenance Program (including CCTV inspection & flushing frequencies), Operational Procedures, Owner vs. City responsibilities, etc.
- Capital rehabilitation and Replacement Program
- Recommended O&M Staffing and Equipment

d) Overflow Emergency Response Plan

e) Fats, Oils, and Grease (FOG) Control Program

f) Design and Performance Provisions.

g) System Evaluation and Capacity Assurances Plan (e.g. CIP)

h) Monitoring, Measurement, and Program Modifications

i) SSMP Program Audits

j) Communication Program

4.9 Sewer Model Training

Carollo will provide a one day training course to the City in the use of the water system hydraulic model. Training materials will be developed by Carollo and provided for the City's use.

4.10 SSMP Update Training

Carollo will provide a one day training course to City staff on updates made to the SSMP. It is assumed that this training will be planned on day consecutive to the sewer model training.

Task 5 – GIS System and CIP Integration

5.1 Integrated System GIS

Carollo will integrate the potable water, recycled water, stormwater, and wastewater system GIS files into a common platform (e.g. google earth or similar). The platform should be one that involves little-to-no license fee and ease of use for non-GIS/non-technical individuals, as well as allows for future expansion to include Pavement Management Information System (PMIS) and other municipal information layers. It is assumed that this task is limited to the compilation of previously developed GIS files and not exceed 50 hours.

5.2 GIS System Training

Provide one 4-hour training to City staff on the use/application of the integrated GIS system.

5.3 Integrated Master Plan CIP

Once the draft water, sewer, and recycled water CIPs are developed, they will be integrated into a single master CIP. Based on an overlay of the three CIPs, an integrated phasing plan will be developed that aligns project phasing to avoid the need to construct different types of pipeline in the same street in subsequent planning years or periods. This phasing realignment provides cost savings opportunities for the City and minimizes construction disruptions for residents.

Carollo will work closely with City staff to present the information in a practical and useful manner, so that the integrated CIP can be used as a road map for the City's current and future planning. This integrated CIP will be included in the IWWRMP report (Task 6). As part of this task, five (5) GIS maps will be prepared to display the water CIP, wastewater CIP, stormwater CIP, potential recycled water projects, and a combined CIP.

5.4 Strategic Financial Planning

Carollo will develop a financial plan that encompasses revenue sources and funding strategies for sustainable future CIP and on-going operational/maintenance requirements. The CIP financing will separate funding sources for capacity enhancement projects vs. maintenance/operation capital projects.

Task 6 – Integrated Water and Wastewater Resources Management Plan Report

Carollo will prepare portions of the draft chapters of the IWWRMP throughout the project. Interim work products will be presented at project meetings to gather input on the IWWRMP content while completing Tasks 1 through 5. The purpose of this IWWRMP task is to provide the City with a complete report for comprehensive review. Based on our experience, we propose to prepare three (3) versions to allow sufficient reviews and plan our schedule realistically. These three report versions are the Draft, Final Draft, and Final IWWRMP. Electronic and hard copy reports will be provided for each version as noted under the task deliverables.

6.1 Draft IWWRMP Report

Carollo will compile the work conducted in previous tasks into the Draft IWWRMP report that will summarize the assumptions, analysis criteria, report findings, and recommendations of the City's system facilities evaluations. Anticipated chapters of the comprehensive master plan include: 0) Executive Summary, 1) Introduction, 2) Land Use and Population Projections, 3) Potable Water Master Plan, 4) Recycled Water Master Plan, 5) Stormwater Master Plan, 6) Sewer System Master Plan, 7) Integrated Capital Improvement Plan, and 8) Integrated Financial Plan. In addition, appropriate Appendices, including the Sewer System Management Plan (SSMP) will be provided.

6.2 Final Draft IWWRMP Report

Carollo will incorporate one set of consolidated comments, preferably provided in electronic format using Track Changes in the word version of the report chapters supplemented by manual/electronic mark-ups on maps and figures. A meeting will be held during this process to make sure that comments are interpreted and addressed appropriately. Upon completion of addressing the City's comments, Carollo format, compile, and submit the Final Draft IWWRMP Report.

6.3 Final Draft IWWRMP Report

Carollo will incorporate one set of consolidated comments, preferably provided in electronic format using Track Changes in the word version of the report chapters supplemented by manual/electronic mark-ups on maps and figures. A meeting will be held during this process to make sure that comments are interpreted and addressed appropriately. Upon completion of addressing the City's comments, Carollo format, compile, and submit the Final IWWRMP Report.

Task Deliverables:

- Draft IWWRMP Report (3 hard copies + 1 electronic copy)
- Final Draft IWWRMP Report (3 hard copies + 1 electronic copy)
- Final IWWRMP Report (10 hard copies + 1 electronic copy)
- Electronic copies of all project text, databases, and graphics
- Electronic files of the water and sewer system hydraulic models
- Electronic GIS files of the water, sewer, and stormwater drainage systems.

OPTIONAL TASKS

A number of optional tasks have been suggested throughout this scope of work to enhance the project in various ways. These tasks are:

- Task 2.3 – Water Facility Condition Assessment
- Task 2.6 – Water Model Calibration
- Task 2.14 – Water Main Risk Assessment
- Task 3.5 – Stormwater Project Prioritization
- Task 4.4 – Sewer Model Calibration

We welcome the opportunity to discuss these ideas with City staff and help decide which of these optional tasks are most beneficial to meet the City's objectives for the IWWRMP.

MANAGEMENT PLAN AND APPROACH

Carollo has rigorous procedures for project management. These have been developed and refined throughout our eight-decade history and contribute to our responsiveness to our clients' needs. Key elements of our management approach include:

- Frequent comparison of planned-versus-actual budget and schedule
- Emphasis on communication with the client and within the project team
- Well-defined quality assurance and quality control procedures

These approaches are detailed in the following sections.

Developing, Tracking, and Maintaining a Realistic Budget and Schedule

Project Staffing Planning

Staffing is key to successful project management and an integral part of our quality management program. Our fundamental approach is to assemble the best-qualified team to match the project requirements. We then review the scope of the project and review staffing levels and budgets from similar projects to estimate labor requirements to complete a project.

A labor-hour estimate is made for each task in the Scope of Work. The estimate includes time for site visits and meetings, as well as actual engineering work for the project. We then use historical data, modified for project-specific requirements, to estimate the types of services and personnel classifications to complete each task.

We combine this staffing effort with our project planning, monitoring, and reporting procedures to verify that each project has adequate resources to meet the project schedule.

Establishing and Maintaining Schedules

Schedules are established by identifying project milestones and determining when each task must be completed to meet the milestone dates. The schedule is reviewed by the project's principal-in-charge (PIC) to determine staff requirements to complete the project on schedule. If a project is needed on a fast-track, more staff are assigned than for a project with a longer schedule. Our project manger and PIC work together to select additional resources to project when needed to meet the project schedule.

The project manager assesses the percent complete for the project on a monthly basis. The percent complete is estimated on a per task basis, in a defined manner, and is done independently of budget review. Budget status is not provided to the project manager until after the percent complete has been estimated.

The estimated percent complete is compared to the planned percent complete to determine if the project is on schedule. If the project is not on schedule, staffing adjustments or other corrective measures are implemented.

Monitoring Progress

To monitor project progress, the project labor-hour budget is fit to the project schedule to form an S-curve. The S-curve is a graphical illustration of the project plan, showing how the project will be completed on time and within the labor-hour budget.

Each month, the percent complete is plotted on the S-curve to compare actual project progress to planned progress. If the actual progress falls behind the planned progress, corrective measures are identified and implemented.

Monitoring Budgets

Each project manager has access to the labor hours charged to each job and can monitor project budget on a daily basis. Using the cumulative hours, percent of budget used is calculated and plotted on the project S-curve. The project manager can then assess the following:

- Are percent complete and percent budget expended close to the planned curve?
- Are percent complete and percent budget expended curves parallel, converging or diverging?
- Does the rate of progress match the budget expenditure rate?

Schedule and labor-hour budgets are established to provide sufficient resources to complete each aspect of a project. This is monitored monthly in relation to the progress of the project to allow early detection of potential budget or schedule problems.

Effective Communication

All communication on the project will go through Carollo's project manager, Inge Wiersema, in order to establish a single point of contact for the City. It will be Inge's duty to convey information to the design team and to keep the City appraised of project progress. In addition, Inge will work with the City to establish required project meetings and their frequency.

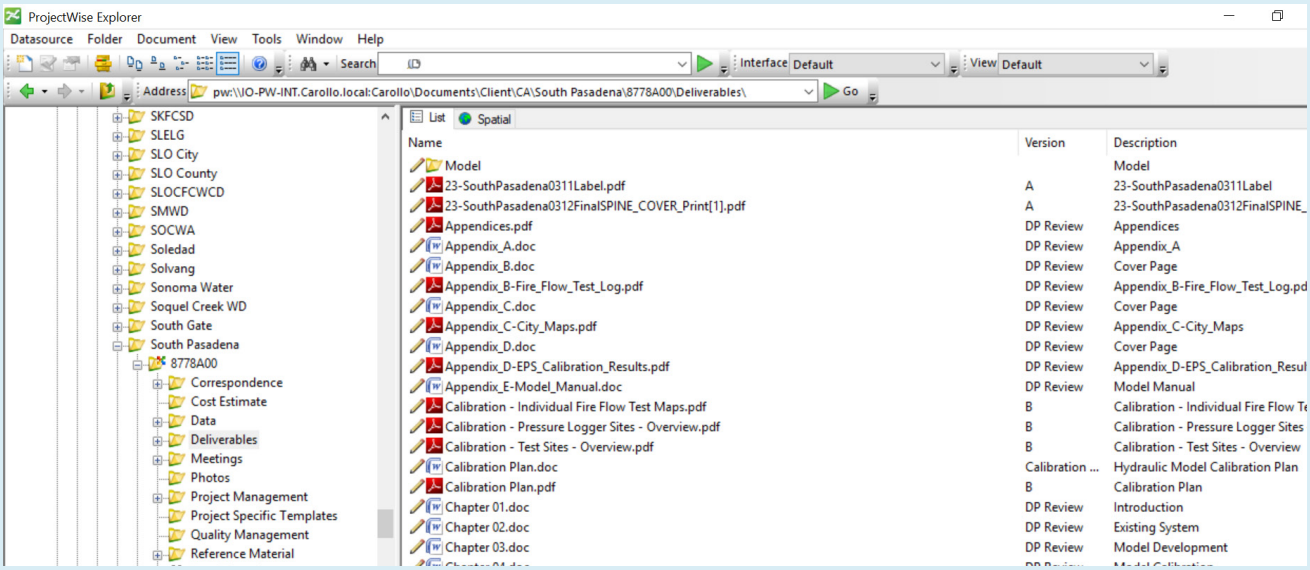
Our most direct way to communicate with you will be through in-person meetings/workshops and bi-weekly conference calls/webmeetings. Regular progress meetings will be scheduled. Inge will prepare an agenda and typically forward it one week in advance so that staff is made aware of the issues to be discussed and the people required to make the necessary decisions can be in attendance. Meeting notes are prepared for each meeting to document decisions made. Meeting notes will be distributed within three business days. Items documented in the meeting notes will include: attendees; meeting time, date, and location; record of discussion; project status; decisions made; action items; and outstanding issues.

We also anticipate meeting on a more frequent and informal basis with project team members as required to assist in the decision-making process. We schedule informal meetings through our project manager to maintain proper communication channels. These meetings can be in person or over the phone, whichever is more convenient for the City's Project Manager and staff.

Document Management

Carollo offers a project-specific management tool on the Internet. Updated daily by Carollo, this website allows your team members to keep track of the project's progress; review schedules, budgets, the latest technical findings, and decisions; and to post current information. In addition to being a useful tool for team communication and coordination, the website can access agendas, notes, draft and final reports, and other project materials. Since it is password protected, it can have technical information, detailed project and budget status reports, and team coordination information.

The website can also be accessed by City staff who may need updates on the project, but are not involved on a day-to-day basis. We have developed similar web pages on other projects and have found them useful for improving coordination and communication among the client, subconsultants, other agencies, and Carollo. In addition, we could create a second layer on the page that can be accessed by the general public. This page is used to supplement public involvement activities and keep the public informed of the project status, time and



Bentley® ProjectWise® is maintained by Carollo throughout the entire project and will include password-protected secure areas for client and project team members.

location of public meetings, and opportunities for public input into the construction. However, a project website and communications with the general public is currently not included in our scope of work or fee estimate.

Quality Assurance and Quality Control

Carollo had developed defined Quality Control Procedures. Our management team will prepare a Project Checklist that lists various project steps. This checklist guides the project team to identify the necessary quality management steps. The checklist helps confirm that the project follows our quality management procedures. Special requirements that can impact the project are identified. This can include special permits and regulatory approvals that could affect schedule, teaming arrangements, and project delivery issues.

Carollo has developed a number of design aid manuals and other Quality Control Tools. These manuals are maintained both as hard copies and on our intranet. These documents are regularly used on our projects to provide a consistent approach to quality management.

Next, a work plan is established to sequence the work effort, outlines when work needs to occur within the project schedule, schedules meeting times, identifies topics of discussion at the meetings, highlights key decisions to be made, and tracks the status of the project deliverables. In addition, a Project Management Plan (PMP) documents the lines of communication, overall schedule, project scope and budget, staffing plan, and any special requirements.

Projects receive a series of reviews at various project points as part of the Quality Control Procedures. These include a peer review of all draft report chapters, the compiled draft report, and the final IWWRMP report.

One of the most important elements of a quality management program is to prevent repetition of project problems. Prevention requires specific programs to implement solutions. Carollo has identified practice leaders by project type and by discipline. The practice leaders have the responsibility to keep abreast of application of current technologies. The practice leaders are a resource to planning and design engineers to provide advice and prevent problems before they occur. Training is a large part of our continuous improvement program. Construction feedback is provided to the design team so that design engineers and CADD operators learn how their designs work in the field.

Our approach will focus on quality throughout all phases to deliver a project that is correct, on time, on budget, achieves the scope, and meets or exceeds your expectations.

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Schedule

PROPOSED SCHEDULE

We have developed a preliminary project schedule based on our understanding of the scope of work. This schedule (shown on the next page) presents the major tasks, task duration, and key project milestones. The schedule is based on a contract award by City Council on November 6, 2019.

We have thoughtfully planned out the work effort described in the Scope of Work and are committed to deliver the final Integrated Water and Wastewater Resources Management Plan in approximately one year from the notice to proceed (NTP). We believe this schedule is achievable based on our current knowledge of the project and the availability of team members.

The following key assumptions were made when preparing this project schedule:

- Project kick-off meeting is held in the week of November 4, 2019.
- Face-to-face project meetings will occur monthly, supplemented by bi-weekly conference calls/ webmeetings to move the project along smoothly. Our project manager, Inge Wiersema, could attend these conference calls/webmeeting in-person as she is a resident of South Pasadena and lives only 5 minutes from the Garfield Reservoir office building.
- To expedite the data gathering process, Carollo will submit a prioritized data gathering list within 24 hours of the NTP.
- Preparation for field work to calibrate the water and sewer models will be accelerated early in the project, such that:
  - Fire flow testing for the water model calibration will take place early February; and
  - Flow monitoring for the sewer model calibration will take place during the month of February to maximize the chance of capturing wet weather event(s).
- The development of the water, sewer, and storm drain GIS systems are staggered to maintain a consistency between the database platforms and avoid redo work, which may be needed when developed in parallel.
- There will be two separate 2-week review rounds for the IWWRMP report to accommodate thorough reviews within the 1-year project timeline.
- Review times for City staff for other deliverables is assumed to be one week.
- Review comments will be consolidated in one version, using track changes in MS Word or a spreadsheet-based comment log.
- Training sessions for the models, SSMP, and integrated GIS system will take place near the end of the projects when the files are consistent with the final IWWRMP deliverables.

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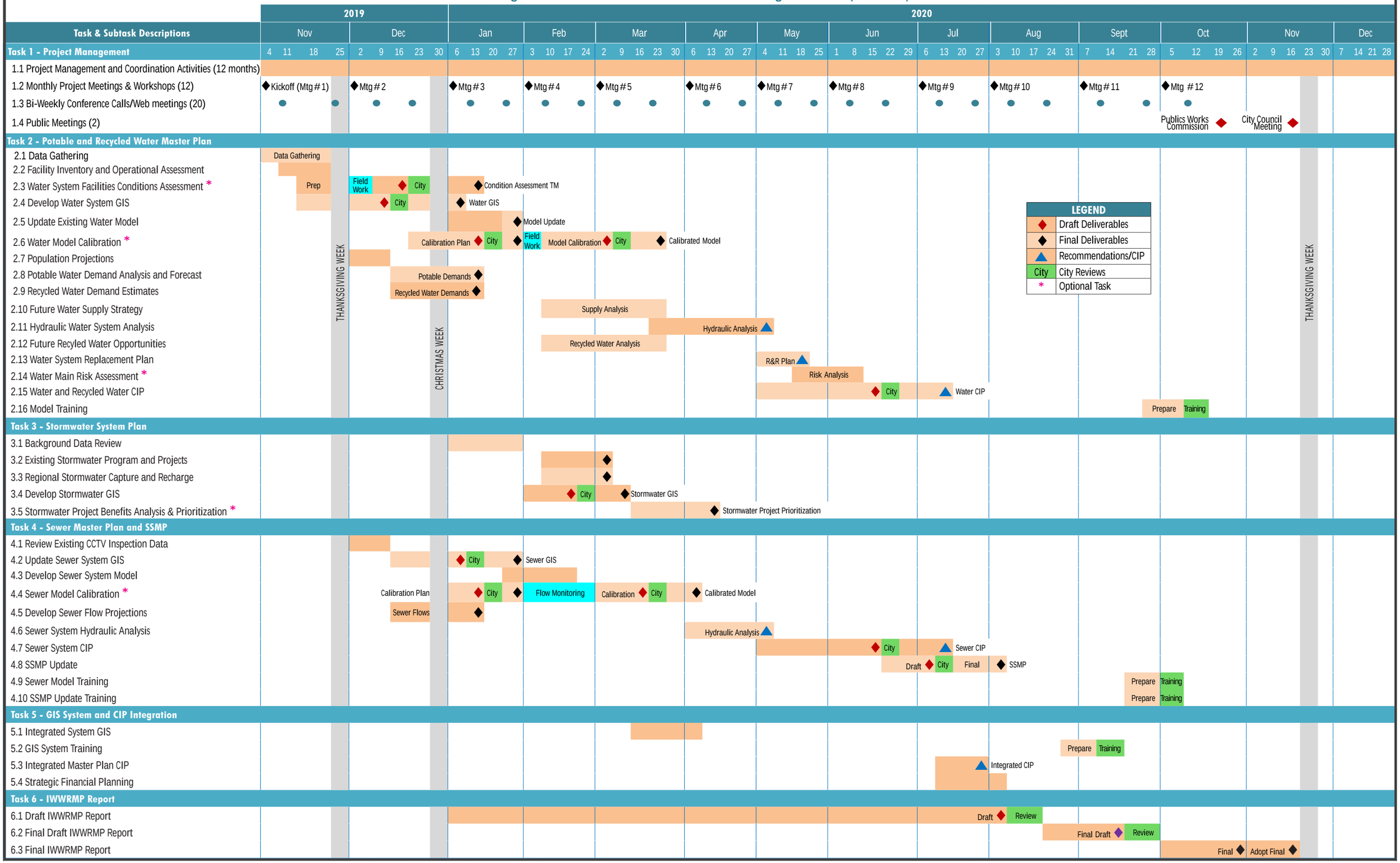
City of South Pasadena
Integrated Water and Wastewater Resources Management Plan (IWWRMP)



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Acceptance Statement

Carollo accepts all the terms and conditions outlined in the City's standard consultant services agreement, and can meet all insurance requirements made part of the agreement, unless otherwise stated in the proposal exceptions.

_____

Inge Wiersema, PE

Vice President/Project Manager

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References

JUST ASK OUR CLIENTS

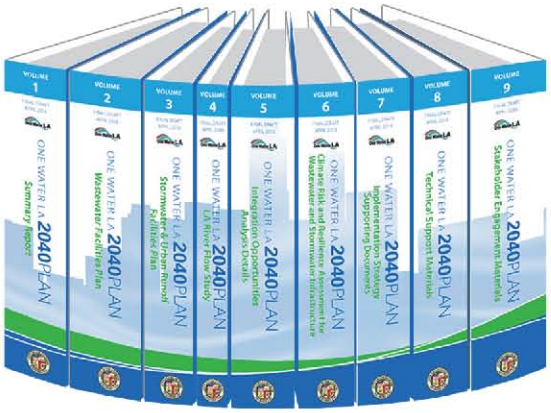
On the following pages we have included a selection of relevant project descriptions with references, as requested in the RFP. We encourage you to contact these references to verify the quality of our services on these similar projects. They can attest to the technical capabilities, management skills, work quality, and commitment to client service of our team members.

City of Los Angeles, CA

One Water LA 2040 Plan

The City of Los Angeles embarked on the One Water LA 2040 Plan to provide a strategic vision and implementation plan to manage all types of water resources as "One Water."

The Plan will ultimately guide the City with strategic and multi-billion dollar decisions for water infrastructure projects that will make LA a more water resilient and sustainable City. The Plan incorporates drastic changes in the water landscape with increased population, substantial reductions in wastewater flows due to water conservation, compliance with new stringent stormwater quality regulations, severe statewide drought, and increasing threats of climate change water supply reliability.



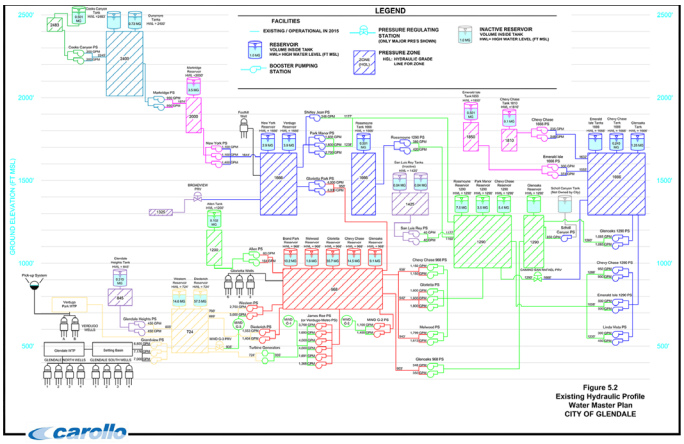
The Plan takes a holistic and collaborative approach, to consider all water resources from surface water, groundwater, potable water, graywater, wastewater, recycled water, and stormwater as "One Water." The plan identifies multi-departmental and multi-agency integration opportunities to manage water in a more efficient, cost effective, and sustainable manner.

Carollo led the effort, including directing stakeholder outreach and communications programs to engage more than 80 neighborhood councils; 15 council districts; and more than a dozen local, state, and federal agencies that represent the City's four million residents. The project involved 500+ stakeholders representing more than 200 organizations. We developed a cost-sharing framework among the network of various entities to secure plan support and funding, identifying the most optimal integration opportunities, and tapping stakeholder energy to achieve the One Water vision.

Reference	
Contact:	Ali Poosti Principal Civil Engineer 323-342-6228
Team Involvement:	Inge Wiersema; Gil Crozes; Matt Huang; Ryan Hejka; Jackie Silber; Bronwyn Kelly; David Baranowski; Aimee Zhao; Laura Southworth
Project Dates:	2015 - 2018

City of Glendale, CA

Water and Recycled Water Master Plan and Hydraulic Model Development



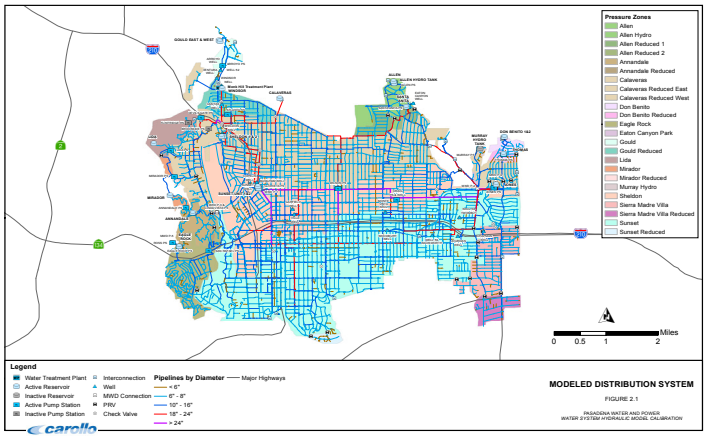
The City of Glendale is located approximately 7 miles northeast of downtown Los Angeles. The water system serves approximately 250,000 residents within a service area of 31 square miles. The system is relatively complex, with the potable and recycled water systems consisting of 397 miles of water mains, 33 reservoirs, 30 pump stations, 14 wells, 2 water treatment plants, 12 chlorination facilities, and 6 water quality monitoring stations. Water is pumped in stages from reservoirs in the lower (south end) into the higher (north end) zones. The service area is divided into seven major pressure zones. Due to the wide variation in service elevations, pumping stations are needed to lift water from the lower zone to the next higher elevation.

The City of Glendale Water and Power Department retained Carollo to develop their 2016 Water and Recycled Water Master Plan. The project included potable and recycled water demand forecasting, water supply analysis, hydraulic modeling, hydraulic system analysis, development of a pipeline replacement program, and a field condition assessment of critical water facilities. The findings of this project were used to develop a detailed CIP and master plan report with a 2040 planning horizon. A cursory financial rate impact study was also included as part of the project.

Reference	
Contact:	Raja Takidin Senior Civil Engineer 818-548-3906
Team Involvement:	Inge Wiersema; Ryan Hejka; Ryan Orgill; Gil Crozes; Aimee Zhao
Project Dates:	2015 - 2016

City of Pasadena, CA

Hydraulic Model Calibration



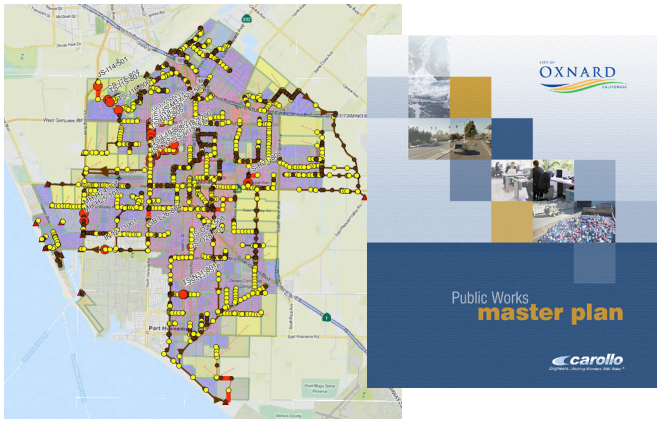
Pasadena Water and Power retained Carollo to review, update, and calibrate their hydraulic model in the latest InfoWater modeling software. Carollo received the model after the model typology was created, and performed a thorough quality assurance and quality control check on the model, identifying more than 90 errors in the model that needed to be fixed. After the errors were addressed, Carollo received the model back from PWP for calibration.

Carollo developed a detailed calibration plan for the model, conducting 20 fire hydrant tests and collecting all available data from SCADA (pump and well flows, reservoir levels, and system pressures). Carollo also provided 15 remote pressure loggers to measure system pressure over the course of a week. Using this information, Carollo developed seven diurnal curves for the system, selecting certain pressure zones where demand patterns could be identified separately. Carollo also investigated and input controls to create an extended period simulation model. Carollo calibrated the model for both fire flows and SCADA data. The calibrated model is currently being used by PWP staff to perform hydraulic evaluations of the water system.

Reference	
Contact:	Bradley Boman Engineering Manager - Water Services Division 626-744-4278
Team Involvement:	Inge Wiersema; Matt Huang; Gil Crozes; Ryan Hejka; Ryan Orgill; Aimee Zhao
Project Dates:	2016 - 2017

City of Oxnard, CA

Public Works Integrated Master Plan



Carollo prepared the City of Oxnard's Public Works Integrated Master Plan, which included master plans for the City's water, sewer collection, recycled water, and stormwater systems, as well as condition assessments, financial planning, CEQA, and a cost-of-service study. The purpose of the IMP was to establish a utility infrastructure road map that improves performance, minimizes costs, and sets the long-term direction of Oxnard's utilities for decades to come.

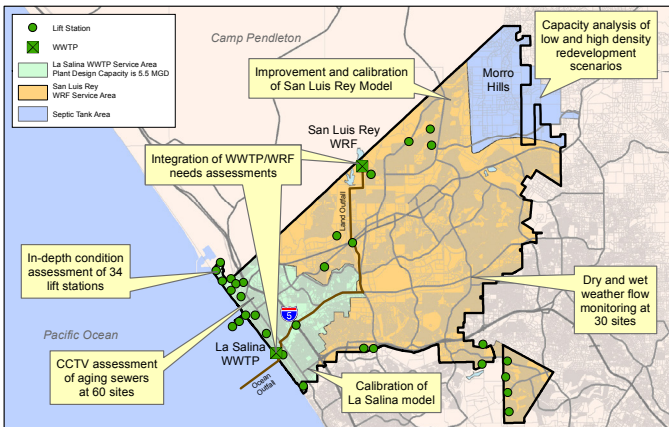
The Plan coordinates the need and timing of planned water utility facilities as related to the elements and projections in the City's 2030 General Plan, with a forward projection through 2040.

The Integrated Master Plan effort included cost-of-service studies, and developing master plans for water, wastewater, stormwater, and recycled water, including a proposed aquifer storage and recovery (ASR) program. Asset condition, hydraulic modeling of the water, recycled water, sewer collection, and stormwater drainage systems. These models were used to perform capacity evaluations for all systems. A comprehensive CIP was developed to prioritize expenditures across all service lines.

Reference	
Contact:	Thien Ng Deputy Director of Public Works 805-432-3575
Team Involvement:	Inge Wiersema; Ryan Orgill; Aimee Zhao; Ryan Hejka; David Baranowski; V&A Consulting
Project Dates:	2014 - 2017

City of Oceanside

Integrated Water, Wastewater, and Recycled Water Master Plan



Carollo prepared the City of Oceanside's Water, Sewer, and Recycled Water Master Plans, which account for proposed updates, improvements, and expansions to the water and sewer systems and facilities with a planning horizon of year 2050. The master plan updates also account for land use changes, recent facility upgrades, new population projections, changes in regulatory environment, and a recently completed rehabilitation needs assessment for the City's water and wastewater treatment facilities.

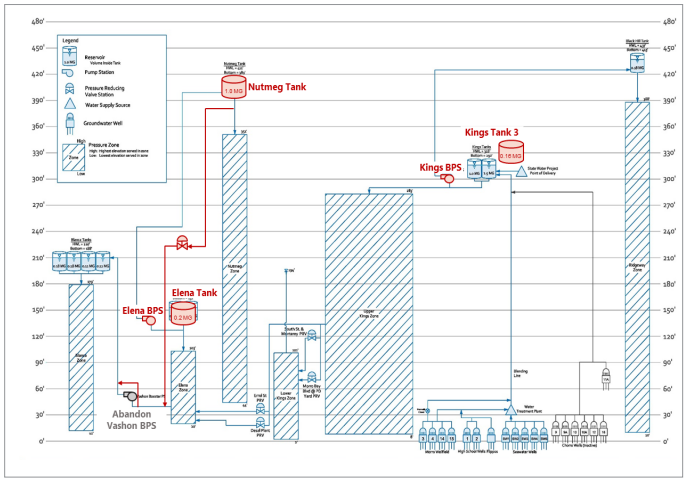
The purpose of this project was to develop a new set of plans to serve as an accurate roadmap of which projects to implement and when. The project included updates and calibration of the water and sewer hydraulic models, construction of a new recycled water model, demand forecasting, sewer flow projections, water and sewer distribution system evaluation, and development of two separate recycled water system layouts based on different supply locations and customer market assessment. The wastewater flow monitoring data was used to calibrate the hydraulic models, which were then used to conduct complete capacity assessments. In addition, the conditions of 60 sewer segments were inspected using CCTV and the City's sewer system management plan was updated.

System analyses included hydraulic modeling analysis, facility capacity analysis, and extensive condition assessment of all major water and sewer facilities to prepare a comprehensive CIP through year 2050.

Reference	
Contact:	Cari Dale Water Utilities Department Director 760-435-5827
Team Involvement:	Inge Wiersema; Tim Loper; Ryan Orgill; Ryan Hejka; Aimee Zhao
Project Dates:	2015 - 2016

City of Morro Bay, CA

OneWater Morro Bay Integrated Master Plan



The City of Morro Bay contracted with Carollo to develop a OneWater Plan that evaluated the water, wastewater, and stormwater systems, as well as conducting a supply resiliency evaluation.

The project scope included development of hydraulic models of all three utility systems, including demand allocation, wastewater flow loading, peaking factors, and peak wet weather flow development. The water system model was calibrated to an extended period simulation using SCADA data, and data from temporary pressure loggers. The wastewater model was calibrated to flow monitoring data collected at multiple locations in the collection system as well as influent data at the wastewater treatment plant.

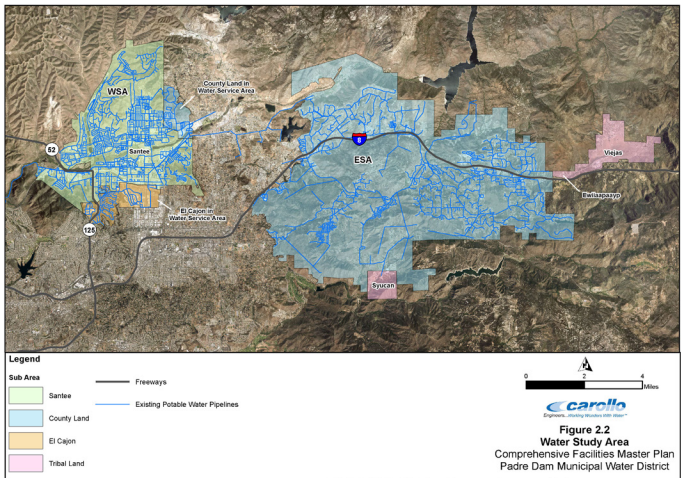
A significant project effort included an analysis of the City's water supply sources, including groundwater, surface water from the state water project, desalination sources, as well as recycled and indirect potable water source options. Carollo helped the City make a decision on the most resilient and cost effective source options for the future.

The project included a stakeholder involvement component where Carollo made presentations to the City Council and the Public Works Advisory Board. Through this work, Carollo was hired to assist the City in implementing the programmatic recommendations over the course of the next five years.

Reference	
Contact:	Rob Livick Public Works Director 805-772-6261
Team Involvement:	Tim Loper; Inge Wiersema; Ryan Orgill; Jackie Silber; Ryan Hejka; Matt Huang; V&A Consulting
Project Dates:	2017 - 2018

Padre Dam Municipal Water District, CA

Comprehensive Facilities Master Plan



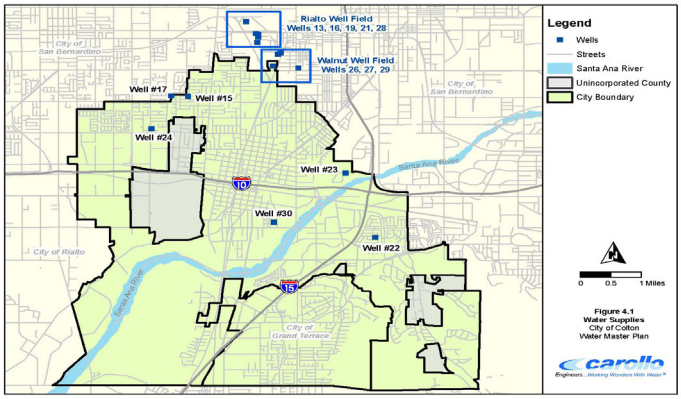
Carollo was hired by the Padre Dam Municipal Water District to update its 2001 Integrated Facilities Plan (IFP) to identify water, wastewater, and recycled water improvement needs within the District's extensive service area through 2020. Since the completion of this IFP, significant changes have occurred within the District's service area with respect to water use and wastewater flows. A key change that impacts the timing and sizing of infrastructure improvements is the general reduction in per capita water use and wastewater flows due to water conservation efforts, water scarcity awareness, and the economic downturn that occurred after 2007. The updated master plans provide accurate and usable documents that can guide the District with budgeting and implementation of capital improvement projects for the next two decades.

Other project elements include developing (recycled) water demand/sewer flows forecasting, water supply analysis, hydraulic models updates for the water and recycled water systems, creation and calibration of a new sewer system model, and field condition assessment of key facilities. In addition, the feasibility of the wastewater plant expansion for an indirect potable reuse project was evaluated. The proposed recommendations that were identified based on the water, wastewater collection, and recycled water system analysis were combined in a comprehensive CIP and water master plan report.

References	
Contact:	Mark Niemiec Manager of District Projects 619-258-4766
Team Involvement:	Inge Wiersema; Tim Loper; Ryan Hejka; Ryan Orgill; Aimee Zhao
Project Dates:	2014

City of Colton, CA

Water and Wastewater System Master Plan Update and Condition Assessment



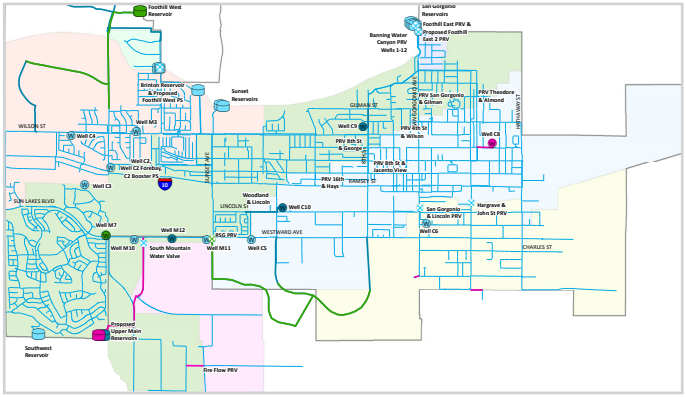
Carollo prepared an update to the City of Colton's Water System Master Plan (WMP), which is part of a larger effort to produce an Integrated Water Master Plan for its water and sewer systems. The City's previous WMP was completed in 1997 and presented projected water requirements and system improvements for the existing systems at the time. The cost estimate for the recommended improvements of the existing system and construction of new equipment was approximately $40 million. As the previous master plan was well over five years old, the City decided to update it and develop a new integrated and phased plan that prioritizes necessary water infrastructure improvements for future conditions.

The purpose of this Water Master Plan is to update the previous plan and aid the City in planning, development, and financing of water system facilities to provide reliable and enhanced service for existing customers and to serve anticipated land use changes and growth. This WMP has a planning horizon of year 2040 and considers existing conditions, as well as future plans presented in the City's General Plan. Where available, specific development plans have been considered. The objective of this WMP is to serve as a strategic planning guide for City staff to make decisions and justify the need for improvements to the City's water systems.

Reference	
Contact:	Mike Corey Water Utility Manager 909-370-6101
Team Involvement:	Inge Wiersema; Tim Loper; Ryan Hejka; Aimee Zhao; Matt Huang; Ryan Orgill; David Baranowski
Project Dates:	2013 - 2015

City of Banning, CA

2017 Integrated Master Plan



The City retained Carollo to update their water, sewer, and recycled water master plans into an integrated master plan to guide the City with the budgeting and implementation of the CIPs. The City has several large vacant parcel areas that can accommodate substantial growth. Population, demand, and flow forecasts were developed at the beginning of the project. Three separate hydraulic models were created for the potable water, recycled water, and wastewater collection systems in Innovyze's InfoWater and InfoSWMM modeling software.

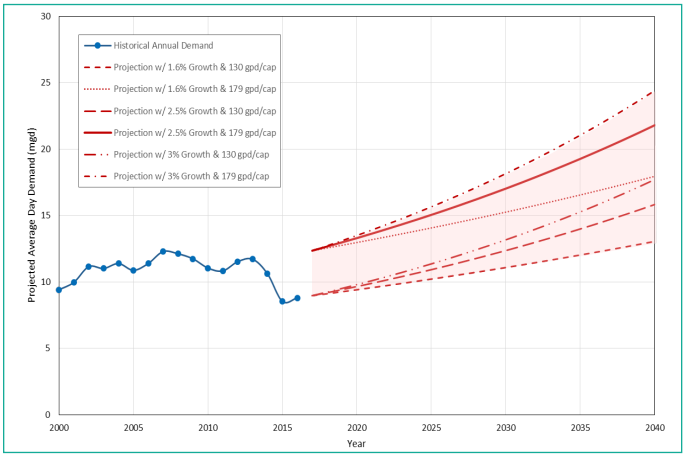
The potable water and wastewater models were calibrated with field data. The models were used to size both existing and future system improvements. The recycled water master plan analyzed both expansion of the purple pipe network to serve non-potable demands, as well as an evaluation of three indirect potable reuse (IPR) options involving various spreading basin locations. A hybrid strategy was recommended to achieve 100 percent reuse of wastewater effluent during the entire year.

The recommended potable water, recycled water, and wastewater projects were combined in a comprehensive CIP. In addition to a traditional written master plan report, a dynamic CIP tool was developed that allows the City to quickly update the timing, sizing, or cost of projects after the completion of the master plan. This dynamic CIP tool supports the City with annual budgeting and provides the City with an up-to-date CIP at all times.

Reference	
Contact:	Arturo Vela Senior Civil Engineer 951-922-3130
Team Involvement:	Inge Wiersema; Matt Huang; Ryan Orgill; Ryan Hejka; Jackie Silber; David Baranowski; Aimee Zhao
Project Dates:	2016 - 2018

City of Porterville, CA

Integrated Master Plan



The City of Porterville contracted with Carollo to develop an integrated master plan for water, wastewater, and storm drainage. The wastewater element also included an evaluation of the condition of the wastewater treatment plant. Carollo conducted a water demand analysis by looking at historical water production and consumption data as well as conducting an evaluation of per capita consumption.

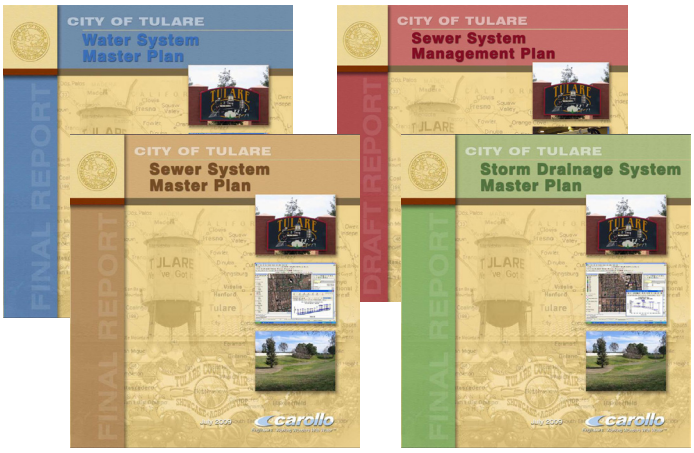
Carollo conducted an evaluation of the City's surface water rights and allocations to determine if surface water treatment was an option for potential future supply shortages. Carollo developed a range of water demand projections for buildout of the City's General Plan boundary. Carollo also developed wastewater flow projections and conducted a temporary flow monitoring program to evaluate existing base flows to be used in the development of the flow projections and hydraulic model allocation.

Carollo constructed and calibrated hydraulic computer models of the water, wastewater and storm drain systems and conducted analysis of existing system capacity and their ability to serve future growth. The water model was constructed in InfoWater, and the storm drain and wastewater models were constructed in InfoSWMM. Carollo used the models to develop recommended projects to mitigate existing deficiencies and serve future growth. Carollo evaluated multiple alternatives and helped the City prioritize options for capital project implementation.

Reference	
Contact:	Mike Reed Public Works Director 559-782-7420
Team Involvement:	Tim Loper; Ryan Orgill; Jackie Silber; David Baranowski
Project Dates:	2017 - 2018

City of Tulare

Water, Sewer, and Storm Drain Master Plans and Sewer System Management Plan



Tulare's master plans involved background review, mapping and hydraulic model selection, develop-ment of design standards and planning criteria, hydraulic modeling, systems evaluation, and opera-tional enhancements.

Carollo conducted flow monitoring throughout the collection system and constructed three hydraulic models. Carollo worked closely with the City to develop evaluation criteria that worked with the City's current budget constraints. The criteria was truth testing with City staff and the water, wastewa-ter, and storm drain hydraulic models were used to evaluate the performance of each system. The mod-els were also used to develop projects to serve the City's buildout land use from the updated General Plan.

Carollo developed projects to mitigate existing defi-ciencies and serve future growth. The projects were prioritized into a comprehensive capital improve-ment plan that allocated funds to existing rate pay-ers and future development. The project included close coordination with outside stakeholders such as the Tulare Irrigation District, Building Industry Association, industrial users and City Council.

References	
Contact:	Michael Miller City Engineer 559-684-4210
Team Involvement:	Tim Loper; Ryan Orgill; V&A Consulting
Project Dates:	2008

Proposal Exceptions

EXCEPTIONS

We have reviewed the City's standard consultant services agreement for the Integrated Water and Wastewater Resources Management Plan and would like to propose the same modifications/additions for your consideration as were accepted and included in our last contract with the City of South Pasadena for the On-Call Modeling project.

New Section 5.12:

"5.12. Estimates and Projections. Consultant has no control over the cost of labor, materials, equipment or services furnished by others, over the incoming water and/or wastewater quality and/or quantity, or over the way City's plants and/or associated processes are operated and/or maintained. Data projections and estimates are based on Consultant's opinion based on experience and judgment. Consultant cannot and does not guarantee that actual costs and/or quantities realized will not vary from the data projections and estimates prepared by Consultant and Consultant will not be liable to and/or indemnify City and/or any third party related to any inconsistencies between Consultant's data projections and estimates and actual costs and/or quantities realized by City and/or any third party in the future, except to the extent such inconsistencies are caused by Consultant's negligent performance hereunder."

Section 11.2:

- Starting in the 3rd line, replace "arising out of or in connection with" with "to the extent caused by."
- In the 5th line, insert "intentionally" before "wrongful acts."

Section 11.5:

Add the following language to the end of the paragraph:

"Notwithstanding the foregoing, in the event the subject action alleges negligence on the part of Consultant and/or City, or any third party not under contract with Consultant, Consultant's obligations regarding City's defense under this section include only the reimbursement of City's reasonable defense costs incurred to the extent of Consultant's negligence as expressly determined by a final judgment, arbitration, award, order, settlement, or other final resolution

New Section 11.9:

"11.9 Limitations. Consultant shall not be responsible for warranties, guarantees, fitness for a particular purpose, breach of fiduciary duty, loss of anticipated profits or for economic, incidental or consequential damages to City or any third party arising out of breach of contract, termination, or for any other reason whatsoever. Additionally, Consultant shall not be responsible for acts and decisions of third parties, including governmental agencies, other than Consultant's subconsultants, that impact project completion and/or success."

Section 12.11:

We request that the words "material change" be replaced with "limit reduction."

Section 13.1:

Add the following to the end of the last sentence: ", which Consultant shall be entitled to use and rely upon."

Section 18.5:

Add the following to the end of the paragraph:

"The services to be performed by Consultant are intended solely for the benefit of City. No person or entity not a signatory to this Agreement shall be entitled to rely on Consultant's performance of its services hereunder, and no right to assert a claim against Consultant by assignment of indemnity rights or otherwise shall accrue to a third party as a result of this Agreement or the performance of Consultant's services hereunder."

ADDENDA

Carollo acknowledges receipt of Addendum No. 1 issued on September 24, 2019. A copy of the signed addendum is located on the following pages.

September 24, 2019

ADDENDUM NO. 1

REQUEST FOR PROPOSALS FOR INTEGRATED WATER AND WASTEWATER RESOURCES MANAGEMENT PLAN

The proposal submittal time, date and location will remain as follows:

> September 30, 2019 at 4:00 p.m. at the Public Works Department located on the first floor of City Hall at 1414 Mission Street, South Pasadena, CA 91030.

Response to Requests for Information:

Q1) "Are you looking for a list in Section 2 with reference information, then similar project descriptions complete with reference information in Section 9?"

A1) Yes. Section 2, Firm's Experience and References requires a list of similar projects whereas Section 9, References requests a minimum of three (3) references information.

Q2) "We request that the deadline for submittals be extended by two weeks to October 14th?"

A2) All proposals must be submitted no later than 4:00 p.m. on September 30, 2019. Proposals received after the deadline will not be considered and the deadline cannot be changed.

Q3) "Is Geographic Information System (GIS) data available for the City's water and sewer system?"

A3) Yes. The GIS layers for the City's water and sewer are available.

Q3) "Is updating the City's existing water model (conversion to the latest InfoWater) or recalibration/validation of the model is optional?"

A3) No. The update of the City's existing water model will be required as a part of this project.

Q4) "What is the budget for the City's Integrated Water and Wastewater Resources Management Plan (IWWRMP)?"

A4) All proposals will be reviewed based on the firm's capability to provide most optimal services to the City, not based on the lowest fee proposal.

ADDENDUM NO. 1

REQUEST FOR PROPOSALS FOR INTEGRATED WATER AND WASTEWATER RESOURCES MANAGEMENT PLAN

This form shall be submitted with your proposal documents.

ACKNOWLEDGMENT OF RECEIPT

Firm: Carollo Engineers, Inc.

Proposer's Signature: Wiersema

Proposer's Name (Print/Type): Inge Wiersema, Vice President

Proposer's Address: 707 Wilshire Blvd, Suite 3920

Los Angeles, CA 90017

(This form must be submitted with the proposal)

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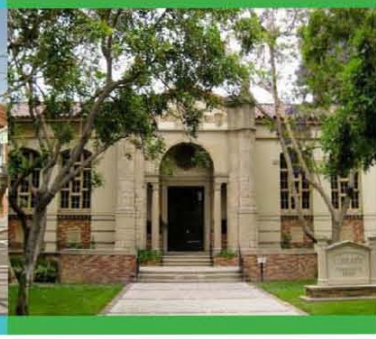

Engineers...Working Wonders With Water®

City Council Agenda Report

ITEM NO. 19

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Lucy Demirjian, Acting Finance Director

SUBJECT: **Discretionary Fund Request from Michael Cacciotti for $1,000 for South Pasadena Beautiful Post Office Project**

Recommendation
It is recommended that the City Council approve a Discretionary Fund request by Councilmember Michael Cacciotti for $1,000 for the purpose of assisting South Pasadena Beautiful, a non-profit group, with cost of the re-landscape of the Post Office.

Commission Review and Recommendation
This matter was not reviewed by a Commission.

Discussion/Analysis
The Discretionary Funding in the amount of $1,000 will help fund the cost of South Pasadena Beautiful for their re-landscape of the Post Office in drought tolerant plants, and removal of turf. It is estimated to cost over $30,000. Funding for the Post Office project is also being provided through fundraising and rebates from Metropolitan Water District. Councilmember Diana Mahmud gave $2,000 from her discretionary fund in June for the project, and Mayor Pro Tem Joe gave $1,000 from his discretionary in November.

Background
In September 2004, the City Council approved creation of discretionary spending budgets which allow each Councilmember the opportunity to fund projects or purchases that might not otherwise be funded in the approved budget. The City Council adopted the Fiscal Year (FY) 2018-19 Budget with $20,000 in the Discretionary Fund, $4,000 designated for each Councilmember. Discretionary funds must be used for a public purpose benefiting the City of South Pasadena (City).

This expenditure meets the criteria as set forth in the guidelines that established discretionary spending: the expenditure has a public purpose; the expenditure is free of any conflict of interest that may arise from the use of City funds; and the expenditure is not a gift to any individual, corporation, or municipality, but is only used to benefit the general public of the City.

On August 17, 2011, the City Council approved Resolution No. 7174, which established guidelines for discretionary budget accounts. The Resolution states that all funds not expended

during the fiscal year shall be carried over to subsequent fiscal years, up to a maximum carryover amount of $10,000 per Councilmember account. Said allocated funds need not be encumbered by a purchase order in order to be carried over to the following fiscal year. The following table displays the current Discretionary Fund balances and excludes the request being considered in the staff report.

City Councilmembers Discretionary Funds
Fiscal Year 2019/20

Date Pledged	Description	Cacciotti	Joe	Khubesrian	Mahmud	Schneider
	Prior Year Balance Carryover Maximum>	$10,000	$10,000	$9,750	$10,000	10,000
	Total with Current Year Allowance(Maximum Allowed $10,000)	*10,000*	*10,000*	*10,000*	*10,000*	*10,000*
8/21/2019	LA Mayor's Conference			*5,000*		
9/18/2019	Senior Center Luncheon		*300*			
11/20/2019	TOR in memory of Paul Abbey			*1,000*		
11/20/2019	SoPas Beautiful Post Office Project		*1,000*			
11/20/2019	Library Ray Bradbury Room fused glass				1,500	
12/4/2019	SoPas Beautiful Post Office Project	*1,000*				
	YTD Appropriations	*1,000*	*1,300*	*6,000*	*1,500*	*0*
	Available at 9/18/19	**$9,000**	**$8,700**	**$4,000**	**$8,500**	**$10,000**

Legal Review
The City Attorney has not reviewed this item.

Fiscal Impact
Funds are available in the FY 2019-20 Budget.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

City Council Agenda Report

ITEM NO. 20

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Shahid Abbas, Public Works Director
Kristine Courdy, Deputy Public Works Director

SUBJECT: **First Reading and Introduction of an Ordinance to Amend Chapter 31 of the South Pasadena Municipal Code to Correct Inconsistent Definitions of a Parkway**

Recommendation

It is recommended that the City Council read by title only for first reading, waiving further reading, and introduce and Ordinance to amend Chapter 31 of the South Pasadena Municipal Code (SPMC) to correct inconsistent definitions of a parkway.

Discussion/Analysis

Chapter 31(Streets and Sidewalks) of the SPMC includes nine articles regarding oversight of streets, sidewalk, curbs, gutter, parkway, driveways and other items citywide. There are four locations in Chapter 31 that have inconsistent definitions of parkway. Many sections define a parkway as the area between the curb and sidewalk. Parkways can fall between the edge of the roadway and the property line irrespective of the presence of sidewalk. To correct these inconsistencies, it is recommended to update the following sections of Chapter 31 of the SPMC:

- SPMC Section 31.2-1B (under Newsracks – Definition) (h): "Parkway" means that area between ~~the sidewalks and the curb of any street, and where there is no sidewalk, that area between~~ the edge of the roadway and the property line adjacent thereto excluding sidewalk (if present). ~~Parkway also includes any area within a roadway which is not open to vehicular travel.~~
- SPMC Section 31.47: Parkway. The area between the edge of the roadway and the property line adjacent thereto excluding sidewalk (if present). ~~That portion of a street other than a roadway or a sidewalk.~~
- SPMC Section 31.48 (a): Responsibility. Pursuant to the requirements of this chapter, the owner of private property adjoining ~~the area between the curb and the sidewalk known as~~ the parkway shall be responsible to plant, install and maintain landscaping in the parkway for the entire frontage of the adjoining property in accordance with the following provisions.

- SPMC Section 31.48 (c) (1) Provision of Landscaping. The parkway ~~area between the sidewalk and the curb~~ shall be landscaped with live plant and non-living material and maintained in a neat and healthy condition.

Next Steps

1. December 18, 2019 – Second Reading and Adoption of the Ordinance amending Chapter 31 of the SPMC.

Legal Review

The City Attorney has reviewed this item.

Fiscal Impact

There is no fiscal impact.

Public Notification of Agenda Item

The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachment: Ordinance Amending Chapter 31 of the SPMC

ORDINANCE NO.____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA AMENDING CHAPTER 31 ("STREETS AND SIDEWALKS") OF THE SOUTH PASADENA MUNICIPAL CODE

SECTION 1. Article I (In General) Section 31.2-1B (Newsracks – Definitions), subsection (h) ("Parkway") is amended to read as follows:

"Parkway" means that area between the edge of the roadway and the property line adjacent thereto excluding sidewalk (if present).

SECTION 2. Article V (Parkway Improvements, Obstructions and Temporary Driveways) Section 31.47 (Definitions) is amended to read as follows:

"**31-47 Definitions.**

For the purpose of this article, unless it is plainly evident from the context that a different meaning is intended, certain terms used herein are defined as follows:

Parkway. The area between the edge of the roadway and the property line adjacent thereto excluding sidewalk (if present).

Sidewalk. A public sidewalk constructed of portland cement concrete."

SECTION 3. Article V (Parkway Improvements, Obstructions and Temporary Driveways) Section 31.48 (Landscaping standards—Parkway improvements),subsection (a) is amended to read as follows:

"Responsibility. Pursuant to the requirements of this chapter, the owner of private property adjoining the parkway shall be responsible to plant, install and maintain landscaping in the parkway for the entire frontage of the adjoining property in accordance with the following provisions."

SECTION 4. Article V (Parkway Improvements, Obstructions and Temporary Driveways) Section 31.48 (Landscaping standards—Parkway improvements),subsection (c)(1) (Parkway Landscaping) is amended to read as follows:

"Provision of Landscaping. The parkway shall be landscaped with live plant and non-living material and maintained in a neat and healthy condition."

SECTION 5. SEVERABILITY. If any provision, section, paragraph, sentence or word of this ordinance, or the application thereof to any person or circumstance, is rendered or declared invalid by any court of competent jurisdiction, the remaining provisions, sections, paragraphs, sentences or words of this ordinance, and their application to other persons or circumstances, shall not be affected thereby and shall remain in full force and effect and, to that end, the provisions of this ordinance are severable.

SECTION 6. **CEQA.** This ordinance is exempt from the California Environmental Quality Act (CEQA) pursuant to 14 Cal. Code Regs. Section 15378(b)(5) as an agency organizational or administrative activity that produces no physical changes to the environment.

SECTION 7. EFFECTIVE DATE. This ordinance shall take effect thirty days after its passage and adoption pursuant to California Government Code Section 36937.

SECTION 8. This ordinance shall take effect thirty (30) days after its final passage and within fifteen (15) days after its passage, the City Clerk of the City of South Pasadena shall certify to the passage and adoption of this ordinance and to its approval by the Mayor and City Council and shall cause the same to be published in a newspaper in the manner required by law.

PASSED, APPROVED, AND ADOPTED this ___ day of _____, 2019.

_____
Marina Khubesrian, M.D., Mayor

ATTEST:

_____
Evelyn G. Zneimer, City Clerk
(seal)

Date: _____

APPROVED AS TO FORM:

_____
Teresa L. Highsmith, City Attorney

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I HEREBY CERTIFY the foregoing ordinance was duly adopted by the City Council of the City of South Pasadena, California, at a regular meeting held on the __ day of _____, 2019, by the following vote:

AYES:

NOES:

ABSENT:
ABSTAINED:

_____

Evelyn G. Zneimer, City Clerk
(seal)

City Council Agenda Report

ITEM NO. 21

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Shahid Abbas, Director of Public Works
Kristine Courdy, Deputy Director of Public Works

SUBJECT: **First Reading and Introduction of an Ordinance Amending IVK "Public Works Commission" of Chapter 2 "Administration" of the South Pasadena Municipal Code to Repeal Section 2.79-6 Sunset to Establish the Public Works Commission as a Permanent Commission**

Recommendation

It is recommended that the City Council:

1) Read by title only for first reading, waiving further reading, and introduce an Ordinance amending IVK "Public Works Commission" of Chapter 2 "Administration" of the South Pasadena Municipal Code (SPMC) to repeal Section 2.79-6 Sunset to establish the Public Works Commission as a permanent commission; and
2) Direct staff to continue to work with the Ad Hoc Committee and commissioners to develop clarified roles and responsibilities of the two commissions and return to City Council with a recommendation.

Executive Summary

To address the overlap in roles and responsibilities between the Public Works Commission (PWC) and Freeway and Transportation Commission (FTC), in November 2018, the City Council considered merging the PWC and FTC. At that time the State of California legislation regarding the SR-710 was not finalized, therefore the City Council directed staff to return in one year with recommendations regarding merging the two commissions.

On June 19, 2019 the City Council established an FTC and PWC Ad Hoc Committee (Ad Hoc Committee) to explore the possibility of merging the two commissions. After several meetings between the Ad Hoc Committee, it was determined that both commissions provide valuable policy recommendations to the City Council, therefore the Ad Hoc Committee recommended establishing the PWC as a permanent commission. The PWC is scheduled to sunset on December 31, 2019, it is therefore recommended to amend SPMC Section 2.79-6 to establish the PWC as a permanent commission and direct staff to return with recommendations for clarifying roles and responsibilities of the two commissions. The Ad Hoc Committee had initial discussion regarding the roles and responsibilities of the PWC and FTC commissions. This discussion should continue with the two commissions as they develop their respective work plans in December 2019 and January 2020.

Commission Review and Recommendation
On June 19, 2019 the City Council established an Ad Hoc Committee comprised of Mayor Khubesrian, Councilmember Schneider, FTC Chair Nuckols, and PWC Vice Chair Abelson to explore the possibility of merging the two commissions to address the overlapping roles and responsibilities of the two commissions.

On October 16, 2019, the Ad Hoc Committee met to discuss the potential FTC and PWC merger. There was consensus regarding the need for citizen oversight, however, the Ad Hoc Committee was split on the decision to merge. Following the Ad Hoc Committee, the FTC and PWC met in a special joint meeting to discuss the potential merger of the two commissions. The commissioners were split on the decision to merge or to remain as two separate commissions (4-4).

On November 19, 2019, the Ad Hoc Committee met to discuss the purview of both commissions. The Ad Hoc Committee agreed that both commissions provide valuable policy recommendations to the City Council and the Ad Hoc Committee recommended keeping the PWC as a permanent commission. In order to address the overlap between the commission purviews, the Ad Hoc Committee suggested that the PWC should provide policy oversight over large local projects (Capital Improvement Plan, Measure M Multi-year Subregional Plan, and mobility initiatives) and the FTC should provide oversight over regional and legislative issues related to mobility and transportation items surrounding the State Route 710 (SR-710). Additional details regarding the specific purviews will be discussed further by the two commissions as part of the annual work plan process in December and January. Staff will return to Council with a recommendation for action following the commission work plan discussions.

Background
The PWC was formed on November 7, 2012 for a period of six years and was set to sunset on November 7, 2018. On May 12, 2017 the FTC and PWC submitted a joint letter regarding their shared roles and responsibilities. On September 19, 2018, the City Council adopted Ordinance No. 2324 to extend the sunset of the PWC by an additional year, to sunset on December 31, 2019. The City Council also requested that staff bring back a recommendation regarding the merger of the FTC and PWC.

Discussion/Analysis
On October 12, 2019, Governor Newsom signed Assembly Bill 29 (Holden) and Senate Bill 7 (Portantino) to remove the SR-710 from the state highway code and deem the SR-710 North Project Freeway Alternatives as infeasible. The original intent of the FTC was to provide support to the Council regarding the fight against the SR-710. The FTC has also taken on the implementation of mitigation measures and the development of alternative transportation projects associated with the SR-710. While the initial intent of the PWC was to provide policy oversight on projects over $250,000, the PWC now provides an integral policy recommendation role for the City's Capital Improvement Program (CIP).

The conclusion of the SR-710 North Project allows the City to refocus its resources on the implementation of the CIP and mobility initiatives. Citizen oversight regarding these projects are

currently provided by both the FTC and PWC. Due to the lack of consensus regarding the merger of the commissions and to avoid sunsetting the PWC, staff recommends to establish the PWC as a permanent commission and revisit the commission merger at a later date.

In order to minimize confusion and increase efficiency, the FTC and PWC charters and annual work plans will be coordinated to coincide with their associated roles and responsibilities to minimize redundancy.

Next Steps

1. December 18, 2019 – Second reading and adoption of the ordinance to establish the PWC as a permanent commission.
2. FTC and PWC will review their commission charters and 2020 work plans which will help address any potential overlap in purviews.
3. The City Council will review and approve the FTC and PWC commission charters and 2020 work plans.

Legal Review

The City Attorney has reviewed this item.

Fiscal Impact

There is no fiscal impact.

Public Notification of Agenda Item

The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachment: Public Works Commission Ordinance

ORDINANCE NO.____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SOUTH PASADENA, CALIFORNIA AMENDING ARTICLE IVK (PUBLIC WORKS COMMISSION) OF THE SOUTH PASADENA MUNICIPAL CODE TO REPEAL SECTION 2.79-6 (SUNSET) AND ESTABLISH THE PUBLIC WORKS COMMISSION AS A PERMANENT COMMISSION

SECTION 1. Article IVK (Public Works Commission), Section 2.79-6 is repealed to establish the Public Works Commission as a permanent commission.

SECTION 2. SEVERABILITY. If any provision, section, paragraph, sentence or word of this ordinance, or the application thereof to any person or circumstance, is rendered or declared invalid by any court of competent jurisdiction, the remaining provisions, sections, paragraphs, sentences or words of this ordinance, and their application to other persons or circumstances, shall not be affected thereby and shall remain in full force and effect and, to that end, the provisions of this ordinance are severable.

SECTION 3. **CEQA.** This ordinance is exempt from the California Environmental Quality Act (CEQA) pursuant to 14 Cal. Code Regs. Section 15378(b)(5) as an agency organizational or administrative activity that produces no physical changes to the environment.

SECTION 4. EFFECTIVE DATE. This ordinance shall take effect thirty days after its passage and adoption pursuant to California Government Code Section 36937.

SECTION 5. This ordinance shall take effect thirty (30) days after its final passage and within fifteen (15) days after its passage, the City Clerk of the City of South Pasadena shall certify to the passage and adoption of this ordinance and to its approval by the Mayor and City Council and shall cause the same to be published in a newspaper in the manner required by law.

PASSED, APPROVED, AND ADOPTED this 4th day of December, 2019.

Marina Khubesrian, M.D., Mayor

ATTEST:

Evelyn G. Zneimer, City Clerk
(seal)

APPROVED AS TO FORM:

Teresa L. Highsmith, City Attorney

Date: _____

I HEREBY CERTIFY the foregoing ordinance was duly adopted by the City Council of the City of South Pasadena, California, at a regular meeting held on the 4th day of December, 2019, by the following vote:

AYES:

NOES:

ABSENT:
ABSTAINED:

Evelyn G. Zneimer, City Clerk
(seal)

City Council Agenda Report

ITEM NO. 22

DATE: December 4, 2019

FROM: Stephanie DeWolfe, City Manager

PREPARED BY: Shahid Abbas, Public Works Director

SUBJECT: **Review City Use of Glyphosate Consistent with the Natural Resources and Environmental Commission's Recommendation**

Recommendation
It is recommended that the City continue using glyphosate in accordance with the City of South Pasadena's (City) Qualified Applicator License with the California Department of Pesticide Regulation.

Commission Review and Recommendation
This matter was reviewed by the Natural Resources and Environmental Commission. The Commission unanimously recommended to continue current weed control practices and limit applications of glyphosate in planters located in high-traffic areas of public parks.

Discussion/Analysis
Over the past several months, growing concerns surrounding the use of glyphosate-based weed control products, such as Roundup, has led the City to task the Natural Resources and Environmental Commission (NREC) to review its use within the City. NREC determined that current weed control practices are appropriate and minimize health risks by adopting strict standards on the amount of herbicide used and locations of application. The City uses glyphosate-based weed control products on an as-needed basis in limited areas, which include only planters, medians, and hardscape cracks. Glyphosate is not used on any turf areas. For reference, Attachment 1 is a map of Garfield Park. The areas highlighted in blue are the only areas that are treated with glyphosate. The table below shows the amount of glyphosate used in the previous months.

Month	Roundup Used (oz)
October 2018	18 oz
November 2018	24 oz
December 2018	0 oz
January 2019	46 oz
February 2019	17 oz
March 2019	0 oz
April 2019	0 oz

May 2019	0 oz
June 2019	0 oz
July 2019	24 oz

In addition, efforts are made to minimize the use by increasing dilution. Currently, two ounces of Roundup is used per one gallon of water (a mixture with one and a half percent Roundup). The product label suggests dilution rates up to thirteen ounces of Roundup per one gallon of water (a mixture with ten percent Roundup).

The City has a Qualified Applicator License with California Department of Pesticide Regulation to oversee pesticide use in landscaped areas. The vendors contracted by the City also have licensed applicators overseeing their pesticide programs and report to the LA County Agricultural Commissioner (LACAC). The LACAC has an inspector assigned to the City who annually conducts inspections on the City's spray program.

Staff has evaluated the use of glyphosate in the City, researched the alleged health hazards with its use, and the alternative herbicides available to alleviate the hazardous risks. Alternatives are generally less effective and require more frequent applications to produce the same results as glyphosate-based herbicides. This results in higher product and labor costs. One of the alternatives reviewed by the University of Maryland is acetic acid (vinegar). Although it has a rapid kill rate and breaks down quickly in the environment, acetic acid does not kill roots, will kill or damage desirable plants, and if misused can cause severe health issues such as burns and chronic bronchitis. A list of alternative herbicides, compiled by North Carolina State University (Attachment 2) highlights that some organic herbicides can be more dangerous than chemical-based herbicides.

Based on staff's research of agencies that have tried alternative methods of weed control staff has determined it would not be feasible for the following reasons:

1. Higher product and labor costs.
2. Less effectiveness of the alternatives resulting in more frequent and concentrated applications.
3. Installation and maintenance of three-inch layers of mulch would be needed in areas currently being sprayed with glyphosate-based herbicides to suppress weed growth.
4. Public's dissatisfaction of landscape appearance due to lower service level.

Given the substantial increase in costs, the lack of effectiveness of alternatives, and the City's current use of glyphosate in a limited and compliant manner, staff does not recommend making any changes to current weed control practices at this time. NREC has reviewed current practices and challenges with switching to alternatives and concurs to continue current practices.

Alternatives Considered

1. Non-glyphosate based conventional herbicide (ex: Lifeline)
2. Organic herbicide (ex: Mirimichi Green)
3. No herbicides (manual labor pulling weeds)

Background
Recently, glyphosate has become controversial due to the fact that the World Health Organization's International Agency for Research on Cancer (IARC) said that the chemical is "probably" carcinogenic to humans. To address this expressed concern, the U.S. Environmental Protection Agency (EPA) – Office of Chemical Safety and Pollution Prevention (OCSPP) reviewed the use of glyphosate, and issued a report on April 30, 2019 reiterating that EPA continues to find no risks to public health when glyphosate is used in accordance with its current label and that glyphosate is not a carcinogen. The EPA also states that its findings on human health risk are consistent with the conclusions of science reviews by many other countries and federal agencies.

Legal Review
The City Attorney has reviewed this item.

Fiscal Impact
City staff received a lump sum estimate from the Contractor that alternative treatments could cost the City up to an additional $12,000 per month. This would bring the total landscape maintenance cost from $25,783.15 to $37,783.15 per month (an increase of $144,000 per year) to maintain the existing level of service. The effectiveness of these alternatives in South Pasadena remains unknown.

Public Notification of Agenda Item
The public was made aware that this item was to be considered this evening by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website and/or notice in the *South Pasadena Review* and/or the *Pasadena Star-News*.

Attachments:
1. Map of Garfield Park
2. List of Alternative Herbicides

GARFIELD PARK

List of Alternative Herbicides
North Carolina State University

Signal words and Organic Materials Review Institute (OMRI) certifications for glyphosate and chemical alternatives for use in managed landscapes

Herbicide	Trade name(s)	Signal word	OMRI certified
glyphosate	Roundup Pro and many more	Caution	No
glufosinate†	Finale	Warning	No
pelargonic acid	Scythe	Warning	No
ammonium nonanoate (=pelargonic acid)	Axxe	Warning	Yes, with restrictions
ammonium soaps of fatty acids	FinalSan	Warning	Yes
caprylic and capric acid	Suppress	Warning	Yes
vinegar / acetic acid	WeedPharm, many others	Danger	Yes, check specific labels
d-limonene	AvengerAG	Caution	Yes
plant oils (clove, cinnamon, citric, others	many	Danger	Yes, check specific labels

Selective Broadleaf Weed Control and Sedge Control

Herbicide	Trade name(s)	Signal word	OMRI certified
triclopyr	Southern Ag Brush Killer, and others	Caution	No
clopyralid†	Lontrel & others	Caution	No
bentazon	Basagran TO	Caution	No
halosulfuron	Sedgehammer	Caution	No
sulfentrazone†	Dismiss	Caution	No

Selective Grass Control

Herbicide	Trade name(s)	Signal word	OMRI certified
clethodim	Envoy, others	Caution	No
fenoxaprop-ethyl	Acclaim Extra	Caution	No
fluazifop-p	Fusilade II, others	Caution	No
sethoxydim	Segment and others	Caution	No