



City Council Regular Meeting Agenda

Revised 11/5/24 Pages 254 & 258

November 5, 2024 at 6:30 PM

City Hall Council Chambers - 210 W 6th Ave and Virtual

Meetings are broadcast live at <https://www.go2kennewick.com/CouncilMeetingBroadcasts>.
Public comment registration and instructions are available at <https://www.go2kennewick.com/PublicComments>.

1. CALL TO ORDER

Roll Call/Pledge of Allegiance/Welcome/Invocation

HONORS & RECOGNITIONS

- Retirement Service Recognition: Liz Edmonson, 37 Years, Police Department
- Retirement Service Recognition: Brian Pochert, 27 Years, Police Department

2. VISITORS

This is an opportunity for visitors to share their perspective regarding any item on the agenda except those topics listed under Public Hearing. Comments may not exceed three minutes.

3. APPROVAL OF AGENDA

4. CONSENT AGENDA

All matters listed within the Consent Agenda have been distributed to each member of the Kennewick City Council for reading and study, are considered to be routine, and will be enacted by one motion of the Council with no separate discussion.

- Meeting Minutes: October 15, 2024, City Council Regular Meeting**
Motion to approve the minutes of the October 15, 2024, City Council regular meeting as presented.
- Meeting Minutes: October 22, 2024, City Council Workshop Meeting**
Motion to approve the minutes of the October 22, 2024, City Council workshop meeting as presented.
- Meeting Minutes: October 29, 2024, City Council Special Meeting**
Motion to approve the minutes of the October 29, 2024, City Council special meeting as presented.
- Claim Roster: Toyota Center Operations and Box Office Accounts**
Motion to approve the Claims Rosters for the Toyota Center Operations and Box Office Accounts for September 2024 in the amount of \$1,220,798.87 comprised of check numbers 27623-27696 in the amount of \$257,527.27 and electronic transfers in the amount of \$963,271.60

e. **Claims Roster: Columbia Park Golf Course Account**

Motion to approve the Claims Roster for the Columbia Park Golf Course Account for September 2024 in the amount of \$42,579.93, comprised of check numbers 2879-2891 in the amount of \$3,584.39 and electronic transfers in the amount of \$38,995.54

f. **Payroll Roster: For the Pay Period Ending 10/15/2024**

Motion to approve the Payroll Roster for the pay period ending 10/15/2024.

g. **Acceptance of Work: 2023 City-Wide Asphalt Overlay Project**

Motion to accept the work of Granite Construction Company for contract P2301-23, 2023 City-Wide Asphalt Overlay, in the amount of \$1,781,011.03.

h. **Acceptance of Work: Deschutes Ave and Columbia Center Blvd Intersection Improvements**

Motion to accept the work of Ellison Earthworks, LLC for contract P2010-23, Deschutes Ave. and Columbia Center Blvd. Intersection Improvements, in the amount of \$2,142,618.05.

i. **Resolution: 2017 Water System Plan (WSP) Amendment**

Motion to adopt the resolution as presented.

j. **Acceptance of Work: Steptoe St. and Gage Blvd. Intersection Improvements**

Motion to accept the work of Apollo, Inc. for contract P2012 Steptoe St. and Gage Blvd. Intersection Improvements Project, in the amount of \$3,137,157.89.

k. **Contract: 2022 General Sewer Plan Supplemental Agreement No. 3**

Motion to authorize the City Manager to sign the Supplemental Agreement No. 3 with J-U-B Engineers, Inc. for the 2022 General Sewer Plan update (P2114).

5. ORDINANCES/RESOLUTIONS

- a. Ordinance: Setting Water Utility Rates
- b. Ordinance: Setting Sewer Utility Rates

6. PUBLIC HEARINGS/MEETINGS

- a. Establishing a Transportation Benefit District (*Public Hearing; Final Action is Scheduled on November 19.*)
- b. Ordinance: 2025 Property Tax Levy
- c. 2025/2026 Biennial Budget (*First Public Hearing; Second Public Hearing and Final Action is Scheduled on November 19.*)
- d. Resolution: Preliminary Latecomers Reimbursement Agreement for S Colorado Street Sewer
- e. Resolution: Vacation of a portion of a 40.00 foot Utility Easement Located at 3404 W 46th Ave.

7. NEW BUSINESS

- a. 2025 Legislative Agenda
- b. Contract: 2025-2028 Collective Bargaining Agreement - IUOE
- c. Wastewater Treatment Plant Phase 2 Project

8. UNFINISHED BUSINESS

9. VISITORS

This is an opportunity for visitors to share their perspective regarding topics of a general nature. Comments may not exceed three minutes.

10. COUNCIL COMMENTS/DISCUSSION

11. ADJOURNMENT

Council Agenda Coversheet	Item Number: 4.a. Date: 11/5/2024 Item Type: General Business Item	Category: Consent Agenda
	Subject: Meeting Minutes: October 15, 2024, City Council Regular Meeting Department: Executive Department	
<u>Recommendation</u> Staff recommends Council approve the meeting minutes as presented. <u>Motion for Consideration</u> Motion to approve the minutes of the October 15, 2024, City Council regular meeting as presented. <u>Summary</u> The City Clerk has prepared action-format meeting minutes for City Council's consideration. <u>Alternatives</u> The City Council may make corrections to errors and approve the meeting minutes as amended. <u>Fiscal Impact</u> None.		
<u>Attachments:</u> 1. Minutes - Draft		

**CITY OF KENNEWICK
CITY COUNCIL REGULAR MEETING
October 15, 2024**

City Council Present – In Person Unless Noted Otherwise:

Gretl Crawford, Mayor
Chuck Torelli, Mayor Pro Tem
Loren Anderson, Councilmember
Brad Beauchamp, Councilmember

Jim Millbauer, Councilmember
Jason McShane, Councilmember
John Trumbo, Councilmember

City Staff Present:

Erin Erdman, City Manager
Laurencio Sanguino, City Attorney
Jessica Platt, Finance Director
Anthony Maui, Planning Director
Jeremy Lustig, Public Works Deputy Director
Jason Kiel, Police Commander
Chad Michael, Fire Chief
Cary Roe, Deputy City Manager

Lisa Beaton, Deputy City Manager
Krystal Townsend, City Clerk
Cody Lewis, IT Director
Nick Farline, Parks Director
Rohana Carmichael, Economic Development Manager
**Dana Dollarhyde, Exec Assistant/Lead
Communications Specialist**

1. CALL TO ORDER

Mayor Crawford called the meeting to order at 6:30 p.m.

Ms. Townsend stated all Councilmembers were in attendance.

Mayor Pro Tem Torelli led the pledge of allegiance. There were no invocations.

2. VISITORS: None.

3. APPROVAL OF AGENDA

MOTION: Mayor Pro Tem Torelli moved to approve the agenda as presented.

SECOND: Councilmember Millbauer.

DISCUSSION: None.

VOTE: The motion passed unanimously (7-0).

4. CONSENT AGENDA

a. Meeting Minutes: September 24, 2024, City Council Workshop Meeting

Motion to approve the minutes of the September 24, 2024, City Council workshop meeting as presented.

b. Meeting Minutes: October 1, 2024, City Council Regular Meeting

Motion to approve the minutes of the October 1, 2024, City Council regular meeting as presented.

c. Meeting Minutes: October 8, 2024, City Council Workshop Meeting

Motion to approve the minutes of the October 8, 2024, City Council workshop meeting as presented.

d. Claims Roster: September 2024

Motion to approve the Claims Roster for September 2024 in the amount of \$5,549,544.11, comprised of electronic payments and check numbers 316298-316694

- e. **Payroll Roster: For the Pay Period Ending 09/30/2024**
Motion to approve the Payroll Roster for the pay period ending 09/30/2024.
- f. **Annual Complete Streets Report**
Motion to approve the Annual Complete Streets Report.
- g. **Boards & Commissions: Lodging Tax Advisory Committee (LTAC) Appointment for a Term Expiring August 31, 2025.**
Motion to appoint Mike Brown to serve as a voting member of the Lodging Tax Advisory Committee with a term expiring August 31, 2025.
- h. **Contract: Management Services Contract with Historic Downtown Kennewick Partnership (HDKP)**
Motion to authorize the City Manager to sign the Management Services Contract with Historic Downtown Kennewick Partnership.
- i. **Contract: Lease Agreement with Historic Downtown Kennewick Partnership (HDKP)**
Motion to authorize the City Manager to sign the lease agreement between the City of Kennewick and Historic Downtown Kennewick Partnership for Avenue Square (Flag Plaza).
- j. **Resolution 24-17: Authorized Signatories**
Motion to adopt the resolution as presented. The City Clerk assigned resolution 24-17.
- k. **Agreement: 2024 Byrne JAG Interlocal Agreement**
Motion to authorize the Mayor to sign the Interlocal Agreement with Benton County and the City of Richland for the 2024 Edward Byrne Justice Assistance Grant (JAG) Program Award.
- l. **Contract: Amending the Light Industrial Area Utilities Extensions Design Contract with J-U-B Engineers, Inc.**
Motion to authorize the City Manager to sign the Supplemental Agreement No. 6.
- m. **Revised Memorandum of Understanding: BFCOG - Regional Climate Planning**
Motion to authorize the Mayor to sign the revised Memorandum of Understanding with Benton Franklin Council of Governments for Regional Climate Planning services.

MOTION:	Councilmember McShane moved to approve the consent agenda as presented.
SECOND:	Mayor Pro Tem Torelli.
VOTE:	The motion passed unanimously (7-0).

5. ORDINANCES/RESOLUTIONS:

a. Resolution 24-18: Ambulance Utility Fee

Ms. Platt provided a staff report and together with Mr. Sanguino and Chief Michael, responded to Council questions.

MOTION:	Mayor Pro Tem Torelli moved to adopt the ordinance as presented.
SECOND:	Councilmember Millbauer.
DISCUSSION:	Council discussed the merits and history of the fee.
VOTE:	The motion passed unanimously (7-0).

The City Clerk assigned resolution 24-18.

6. PUBLIC HEARING: None.

7. NEW BUSINESS: None.

8. UNFINISHED BUSINESS: None.

9. VISITORS:

Two visitors spoke separately in regards to concerns about The Falls, a development on West 24th Avenue.

A visitor requested improvements to the live meeting broadcasts on the website.

10. COUNCIL COMMENTS/DISCUSSION:

Councilmembers reported on their respective activities, upcoming events, and items of concern.

Ms. Erdman spoke to a request from the Association of Washington Cities (AWC) to add the City's logo to a flyer they are creating in an effort to bring attention to legislation concerning the cap increase for property taxes. A majority of Council concurred (no formal vote taken) to support the use of the City's logo on the flyer; no formal objections, or motions to prevent the use of the logo, were raised.

11. ADJOURNMENT: Mayor Crawford concluded the meeting at 7:19p.m.

DRAFT

Krystal Townsend, CMC, CPRO
City Clerk

At the time of publishing these minutes, the City Council meeting recording is available at:

<https://kennewickwa.new.swagit.com/videos/317817>

Council Agenda Coversheet	Item Number: 4.b. Date: 11/5/2024 Item Type: General Business Item	Category: Consent Agenda
	Subject: Meeting Minutes: October 22, 2024, City Council Workshop Meeting Department: Executive Department	
<u>Recommendation</u> Staff recommends Council approve the meeting minutes as presented. <u>Motion for Consideration</u> Motion to approve the minutes of the October 22, 2024, City Council workshop meeting as presented. <u>Summary</u> The City Clerk has prepared summary meeting minutes for City Council's consideration. <u>Alternatives</u> The City Council may make corrections to errors and approve the meeting minutes as amended. <u>Fiscal Impact</u> There are no fiscal impacts.		
<u>Attachments:</u> 1. Minutes - Draft		

CITY OF KENNEWICK
CITY COUNCIL
Workshop
October 22, 2024

City Council Present – In Person:

Gretl Crawford, *Mayor*
Chuck Torelli, *Mayor Pro Tem*
Brad Beauchamp, *Councilmember*

Jason McShane, *Councilmember*
Jim Millbauer, *Councilmember*
John Trumbo, *Councilmember*

City Staff Present:

Erin Erdman, *City Manager*
Lisa Beaton, *Deputy City Manager*
Cary Roe, *Deputy City Manager*
Anthony Muai, *Planning Director*
Laurencio Sanguino, *City Attorney*
Chris Guerrero, *Police Chief*
Chad Michael, *Fire Chief*

John Cowling, *Public Works Director*
Chad Crouch, *Human Resources Director*
Jessica Platt, *Finance Director*
Robert Ball, *Deputy Fire Chief*
BJ Moos, *Police Commander*
Krystal Townsend, *City Clerk*
Dana Dollarhyde, *Exec Assistant/Lead Communications Specialist*

1. **CALL TO ORDER.** Mayor Crawford called the meeting to order at 6:30 p.m.

Mayor Crawford explained that Councilmember Anderson provided advanced notice of his absence and invited a motion to excuse the absence.

MOTION:	Mayor Pro Tem Torelli moved to excuse the absence of Councilmember Anderson.
SECOND:	Councilmember Millbauer.
DISCUSSION:	None.
VOTE:	The motion passed unanimously (6-0).

Mayor Crawford announced a citizen comment was received and distributed by the City Clerk to all Councilmembers prior to the meeting. The comment was added to the agenda materials on the public portal.

2. **PFAS IN WWTP BIOSOLIDS/ INDUSTRY TRENDS AND UPDATE.** Mr. Cowling introduced Ted Merrell, Board Co-Chairman of Merrell Bros. Inc. Mr. Merrell provided a comprehensive presentation and together with Mr. Cowling and Mr. Roe, responded to Council questions. **No final disposition of this matter taken.**
3. **WASTE WATER TREATMENT PLANT (WWTP) PHASE 2 UPDATE.** Mr. Lustig reviewed the history of the project, provided a status update, and discussed project costs/funding. Council asked clarifying questions which Mr. Lustig and Mr. Roe answered. **No final disposition of this matter taken.**

4. **WATER & SEWER RATE STUDY UPDATE.** Mr. Cowling introduced Angie Sanchez Virnoche, Principal, FCS Group. Ms. Sanchez Virnoche, together with Mr. Cowling, provided an in-depth update and responded to Council questions. **No final disposition of this matter taken.**
5. **ADJOURNMENT.** Mayor Crawford concluded the meeting at 7:49 p.m.

DRAFT

Krystal Townsend, CMC, CPRO
City Clerk

At the time of publishing these minutes, the City Council meeting recording is available at:
<https://kennewickwa.new.swagit.com/videos/318454>

Council Agenda Coversheet	Item Number: 4.c. Date: 11/5/2024 Item Type:	Category: Consent Agenda
	Subject: Meeting Minutes: October 29, 2024, City Council Special Meeting Department: Executive Department	
<u>Recommendation</u> Staff recommends Council approve the meeting minutes as presented. <u>Motion for Consideration</u> Motion to approve the minutes of the October 29, 2024, City Council special meeting as presented. <u>Summary</u> The City Clerk has prepared summary meeting minutes for City Council's consideration. <u>Alternatives</u> The City Council may make corrections to errors and approve the meeting minutes as amended. <u>Fiscal Impact</u> There are no fiscal impacts.		
<u>Attachments:</u> 1. Minutes - Draft		

CITY OF KENNEWICK
CITY COUNCIL SPECIAL MEETING
October 29, 2024

City Council Present – In Person:

Gretl Crawford, *Mayor*
Chuck Torelli, *Mayor Pro Tem*
Loren Anderson, *Councilmember*
Brad Beauchamp, *Councilmember*

Jason McShane, *Councilmember*
Jim Millbauer, *Councilmember*
John Trumbo, *Councilmember*

City Staff Present:

Erin Erdman, *City Manager*
Lisa Beaton, *Deputy City Manager*
Cary Roe, *Deputy City Manager*
Anthony Muai, *Planning Director*
Laurencio Sanguino, *City Attorney*
Chris Guerrero, *Police Chief*
Chad Michael, *Fire Chief*
John Cowling, *Public Works Director*

Chad Crouch, *Human Resources Director*
Jessica Platt, *Finance Director*
Robert Ball, *Deputy Fire Chief*
Jose Santoy, *Police Commander*
Cody Lewis, *Information Technology Director*
Krystal Townsend, *City Clerk*
Dana Dollarhyde, *Exec Assistant/Lead Communications Specialist*

1. **CALL TO ORDER.** Mayor Crawford called the meeting to order at 6:30 p.m.
2. **PRESENTATION: 2025/2026 PRELIMINARY BUDGET.** Ms. Erdman stated the preliminary budget had been distributed to the City Council and published to CivicClerk, the online meeting portal. Ms. Platt provided a comprehensive overview of the upcoming public hearings, key meeting dates and the 2025/2026 preliminary budget. Ms. Erdman, Ms. Platt and other key staff answered Council's questions. **No final disposition of this matter taken.**
3. **BUDGET DISCUSSION: PROPERTY TAX LEVY.** Ms. Platt provided a historical perspective of the property tax levies, how the funds are distributed, how the rate is calculated, and the proposed rate for 2025. Ms. Platt responded to Council questions. **No final disposition of this matter taken.**
4. **ADJOURNMENT.** Mayor Crawford concluded the meeting at 8:01 p.m.

DRAFT

Krystal Townsend, CMC, CPRO
City Clerk

At the time of publishing these minutes, the City Council meeting recording is available at:

<https://kennewickwa.new.swagit.com/videos/318983>

Council Agenda Coversheet	Item Number: 4.d. Item Type: General Business Item Subject: Claim Roster: Toyota Center Operations and Box Office Accounts Department: Finance	Date: 11/5/2024 Category: Consent Agenda						
								
<u>Recommendation</u> Staff recommends that Council approve the Claims Rosters for the Toyota Center Operations and Box Office Accounts for September 2024 as presented.								
<u>Motion for Consideration</u> Motion to approve the Claims Rosters for the Toyota Center Operations and Box Office Accounts for September 2024 in the amount of \$1,220,798.87 comprised of check numbers 27623-27696 in the amount of \$257,527.27 and electronic transfers in the amount of \$963,271.60								
<u>Summary</u> The payments on this Claims Roster are comprised of the following issuances during the period 9/1/2024-9/30/2024: <table><tr><td>Check numbers 27623-27696:</td><td>\$257,527.27</td></tr><tr><td>Electronic payments (EFT):</td><td>\$963,271.60</td></tr><tr><td>Total</td><td>\$1,220,798.87</td></tr></table>			Check numbers 27623-27696:	\$257,527.27	Electronic payments (EFT):	\$963,271.60	Total	\$1,220,798.87
Check numbers 27623-27696:	\$257,527.27							
Electronic payments (EFT):	\$963,271.60							
Total	\$1,220,798.87							
<u>Alternatives</u>								
<u>Fiscal Impact</u> \$1,220,798.87								
Attachments: 1. Claims Roster								

**Toyota Center and Arena
Claims Roster
September 30,2024**

<u>Date</u>	<u>Check</u>	<u>Method</u>	<u>Name</u>	<u>Amount</u>
<u>TOYO Sterling Operating Account</u>				
09/05/24		Wire Transfer	CMN Events (00002688)	261,962.86
09/05/24			Cheyenne Settle 8/28/24	261,962.86
102150		• A/P Settlements	Cheyenne Settle 8/28/24	261,962.86
09/06/24		Wire Transfer	King Beverage (00000486)	11,929.20
09/06/24			3006842 Beer	11,929.20
101413		• Inventory - Beer	Beer	11,929.20
09/06/24		Wire Transfer	Odom East LLC (00003343)	1,877.36
09/06/24			15925556 Beer	1,877.36
101413		• Inventory - Beer	Beer	1,877.36
09/06/24		Wire Transfer	Southern Glazer's of WA (00002855)	2,564.60
09/06/24			4795091 Liquor	2,564.60
101415		• Inventory - Liquor	Liquor	2,564.60
09/04/24	27623	Auto Check	Backstage Electric, Inc. (00002752)	25,407.07
09/04/24			2792 Labor - Chayanne	25,407.07
107401		• Outside Event Expense	Labor - Chayanne	25,407.07
09/13/24		Wire Transfer	CMN Events (00002688)	5,371.33
09/13/24			Nodal Merch due to show	5,371.33
102150		• A/P Settlements	Nodal Merch due to show	5,371.33
09/13/24		Wire Transfer	King Beverage (00000486)	5,276.35
09/13/24			3011596 Beer	5,276.35
101413		• Inventory - Beer	Beer	5,276.35
09/13/24		Wire Transfer	Odom East LLC (00003343)	1,131.88
09/13/24			16224326 Beer	1,131.88
101413		• Inventory - Beer	Beer	1,131.88
09/09/24	27624	Auto Check	Advanced Protection Services, Inc. (00002751)	732.38
09/09/24			R154509 Temp Security Monitoring	43.43
107209		• Security & Fire Alarm System	Temp Security Monitoring	43.43
09/09/24			R154510 Vault Security Monitoring	43.43
107209		• Security & Fire Alarm System	Vault Security Monitoring	43.43
09/09/24			R154508 OpenEye	418.50
107209		• Security & Fire Alarm System	OpenEye	418.50
09/09/24			R154507 Fire Monitoring	73.86
107209		• Security & Fire Alarm System	Fire Monitoring	73.86
09/09/24			R154506 Ammonia Monitoring	79.30
107209		• Security & Fire Alarm System	Ammonia Monitoring	79.30
09/09/24			R154505 Fire Monitoring	73.86
107209		• Security & Fire Alarm System	Fire Monitoring	73.86
09/09/24	27625	Auto Check	Apollo Heating and Air Conditioning (00002933)	10,487.57
09/09/24			KS-940058822 Oven Gas Lines	3,050.12
109010		• Capital Improvements	PO4706 - Oven Gas Lines	3,050.12
09/09/24			KS-940057906 HVAC Maintenance Contract	3,583.95
107210		• HVAC Repairs & Maintenance	HVAC Maintenance Contract	3,583.95
09/09/24			KS-940060647 HVAC Repair	269.55
107210		• HVAC Repairs & Maintenance	HVAC Repair	269.55
09/09/24			KS-940060812 HVAC Maintenance Contract	3,583.95
107210		• HVAC Repairs & Maintenance	HVAC Maintenance Contract	3,583.95
09/09/24	27626	Auto Check	Apple Valley Broadcasting Inc (00003532)	1,317.50
09/09/24			277518-1 TV Ads	1,317.50
107402		• Event Advertising	TV Ads - PBR	1,317.50

Date	Check	Method	Name	Amount
09/09/24	27627	Auto Check	Ascentis Corporation (00002983)	1,272.65
09/09/24	107070	SI-172237 • Payroll Processing	NOVA5000 NOVA5000	1,272.65
			Due To/From TRCC	636.32 636.33
09/09/24	27628	Auto Check	Backstage Electric, Inc. (00002752)	10,061.25
09/09/24	104327	2803 • Reimbursed Contract Labor	Set Up for PBR Set Up for PBR	10,061.25
09/09/24	27629	Auto Check	Brashear Electric, Inc. (00002756)	568.99
09/09/24	107212	41788 • Building Repairs & Maintenance	Wire Repairs Wire Repairs	568.99
09/09/24	27630	Auto Check	Canon Solutions (00002757)	37.35
09/09/24	107105	6008929407 • Printing / Copying	Copier Maintenance - UMT Copier Maintenance - UMT	37.35
09/09/24	27631	Auto Check	Cascade Fire Protection Co. (00004047)	1,020.00
09/09/24	107209	01115-01 • Security & Fire Alarm System	Annual Fire Pump Inspection Annual Fire Pump Inspection	1,020.00
09/09/24	27632	Auto Check	Central Washington Refrigeration, LLC (00002949)	444.45
09/09/24	107212	49551 • Building Repairs & Maintenance	Glycol Inspection Glycol Inspection	444.45
09/09/24	27633	Auto Check	CI Information Management (00002840)	197.99
09/09/24	107304	0170991 • Contracted Services	Shred Service Shred Service	197.99
09/09/24	27634	Auto Check	City of Kennewick - Water (00002858)	3,086.88
09/09/24	107219	06/26/2024-8/27/2024 • Water	Water Services Water Services	3,086.88
09/09/24	27635	Auto Check	Coca-Cola (00000213)	4,870.40
09/09/24	101411	157804 • Inventory - Food	Beverage Credit Beverage Credit	-1,856.00
09/09/24	101411	159729 • Inventory - Food	Beverages Beverages	6,726.40
09/09/24	27636	Auto Check	Cougar Digital Marketing & Design (00002861)	210.25
09/09/24	107302	13802 • Venue Marketing & Non-Event Advertising	Website Maintenance Website Maintenance	210.25
09/09/24	27637	Auto Check	Daktronics (00002737)	1,521.80
09/09/24	107202	7103257 • Small Equipment & Furniture	Marquee Repair PO4835 - Marquee Repair	1,521.80
09/09/24	27638	Auto Check	DevFuzion (00000278)	5,895.44
09/09/24	107104	25690 • IT Support Services	Network Support Service Network Support Service	5,895.44
			Due To/From TRCC	2,947.72 2,947.72
09/09/24	27639	Auto Check	Fastsigns (00002768)	153.81
09/09/24	107314	INV-73536 • Signage Expense	Signage - Suites Signage - Suites	153.81
09/09/24	27640	Auto Check	Gamache Landscaping, Inc. (00002798)	2,010.95
09/09/24	107213	1487 • Grounds Repairs & Maintenance	Monthly Lawn Maintenance Monthly Lawn Maintenance	2,010.95
09/09/24	27641	Auto Check	GoTo Communications, Inc. (00003770)	1,214.49
09/09/24	107205	IN7103191180 • Communications	Phone Services Phone Services	1,214.49
			Due To/From TRCC	607.24 607.25
09/09/24	27642	Auto Check	Kendrick Equipment (USA) LLC (00003867)	17,276.63
09/09/24	109010	U51880 • Capital Improvements	Zamboni Recertification Parts PO4645 - Zamboni Recertification Parts	8,220.39
09/09/24	109010	U51879 • Capital Improvements	Zamboni Recertification Parts PO4645 - Zamboni Recertification Parts	9,056.24

Date	Check	Method	Name	Amount
09/09/24	27643	Auto Check	Kennewick Union Firefighters L-1296 (00003455)	2,535.00
09/09/24	AUGUST 2024		EMT Services	2,535.00
107404	• Event Contracted Labor		EMT Services	2,535.00
09/09/24	27644	Auto Check	KNDO/KNDU (00002825)	2,796.50
09/09/24	229260-2		TV Ads - PBR	2,796.50
107402	• Event Advertising		TV Ads - PBR	2,796.50
09/09/24	27645	Auto Check	Loomis (00002895)	288.65
09/09/24	13562493		Armored Car Service	288.65
107304	• Contracted Services		Armored Car Service	144.32
			Due To/From TRCC	144.33
09/09/24	27646	Auto Check	Lowe's Commercial Services (00002776)	2,008.82
09/09/24	985140		Housekeeping Supplies	263.75
107201	• Tools & Supplies		PO4821 - Housekeeping Supplies	263.75
09/09/24	985575		Tools Refund	-61.93
107201	• Tools & Supplies		Tools Refund	-61.93
09/09/24	985607		Supplies	153.86
107201	• Tools & Supplies		PO4821 - Supplies	153.86
09/09/24	996280		Horseshoe Supplies	102.12
107201	• Tools & Supplies		PO4821 - Horseshoe Supplies	102.12
09/09/24	998322		Batteries	57.74
107201	• Tools & Supplies		PO4821 - Batteries	57.74
09/09/24	980269		Horseshoe Supplies	306.37
107201	• Tools & Supplies		PO5824 - Horseshoe Supplies	306.37
09/09/24	982372		Tools	52.60
107201	• Tools & Supplies		PO5824 - Tools	52.60
09/09/24	982701		Tools	200.07
107201	• Tools & Supplies		PO4832 - Tools	200.07
09/09/24	982708		Tools	109.37
107201	• Tools & Supplies		PO4828 - Tools	109.37
09/09/24	983547		Tools	17.53
107201	• Tools & Supplies		PO5824 - Tools	17.53
09/09/24	987375		Tools	105.33
107201	• Tools & Supplies		PO4839 - Tools	105.33
09/09/24	999939		Supplies	38.97
107201	• Tools & Supplies		PO5824 - Supplies	38.97
09/09/24	973495		Tools & Supplies	105.21
107201	• Tools & Supplies		PO5824 - Tools & Supplies	105.21
09/09/24	974199		Tools & Supplies	165.05
107201	• Tools & Supplies		PO4848 - Tools & Supplies	165.05
09/09/24	27647	Auto Check	(voided check stub, detail below included in previous check amount)	VOID
09/09/24	976146		Tools	72.24
107201	• Tools & Supplies		PO4848 - Tools	72.24
09/09/24	984541		Locker Room Paint	254.47
107201	• Tools & Supplies		PO4851 - Locker Room Paint	254.47
09/09/24	984547		Tools	66.07
107201	• Tools & Supplies		PO4848 - Tools	66.07
09/09/24	27648	Auto Check	Michael Abbott (00002770)	108.00
09/09/24	48-015043		FiltaFry Fryer Service	108.00
107508	• F&B Equipment Repairs & Maintenance		FiltaFry Fryer Service	108.00
09/09/24	27649	Auto Check	Oxarc (00002929)	1,295.09
09/09/24	0032148453		CO2	1,137.65
104370	• Reimbursed Outside Event Expense		CO2 - Chayanne	1,137.65
09/09/24	0061829930		CO5	157.44
104370	• Reimbursed Outside Event Expense		CO5 - Chayanne	157.44
09/09/24	27650	Auto Check	Reign Drop LLC (00003211)	766.52
09/09/24	S4176-24-4545		Pizza	169.79
101411	• Inventory - Food		Pizza	169.79
09/09/24	S4176-24-4546		Pizza	147.95
101411	• Inventory - Food		Pizza	147.95
09/09/24	S4176-24-4544		Pizza	202.55
101411	• Inventory - Food		Pizza	202.55
09/09/24	S4176-24-4543		Pizza	246.23
101411	• Inventory - Food		Pizza	246.23

Date	Check	Method	Name	Amount
09/09/24	27651	Auto Check	Rocky Mountain Rigging (00002781)	3,807.80
09/09/24	104370	PBR 2024	Rigging	3,807.80
		• Reimbursed Outside Event Expense	Rigging - PBR	3,807.80
09/09/24	27652	Auto Check	Springhill Suites of Kennewick (00002726)	1,587.93
09/09/24	104370	Folio: 70172	Room Rental	267.26
		• Reimbursed Outside Event Expense	Room Rental - Chayanne	267.26
09/09/24	104370	Folio: 70174	Room Rental	267.26
		• Reimbursed Outside Event Expense	Room Rental - Chayanne	267.26
09/09/24	104370	Folio: 70173	Room Rental	267.26
		• Reimbursed Outside Event Expense	Room Rental - Chayanne	267.26
09/09/24	104370	Folio: 70170	Room Rental	267.26
		• Reimbursed Outside Event Expense	Room Rental - Chayanne	267.26
09/09/24	104370	Folio: 70171	Room Rental	267.26
		• Reimbursed Outside Event Expense	Room Rental - Chayanne	267.26
09/09/24	104370	Folio: 70169	Room Rental Cancellation	118.00
		• Reimbursed Outside Event Expense	Room Rental Cancellation - Chayanne	118.00
09/09/24	104370	Folio: 71226	Room Rental	133.63
		• Reimbursed Outside Event Expense	Room Rental - PBR	133.63
09/09/24	27653	Auto Check	Sunbelt Rentals, Inc. (00002783)	4,630.49
09/09/24	104370	158572038-0001	Forklift Rental	1,848.45
		• Reimbursed Outside Event Expense	Forklift Rental - Chayanne	1,848.45
09/09/24	107305	158696459-0001	Forklift Rental	526.49
		• General Rental Equipment	Forklift Rental	526.49
09/09/24	104370	158572038-0003	Manlift Rental	1,673.72
		• Reimbursed Outside Event Expense	Manlift Rental - Chayanne	1,673.72
09/09/24	104370	158572038-0002	Manlift	581.83
		• Reimbursed Outside Event Expense	Manlift - Chayanne	581.83
09/09/24	27654	Auto Check	Townsquare Media-Tri Cities (00002784)	892.50
09/09/24	107402	5016594-1	Advertising - Tim Allen	892.50
		• Event Advertising	Advertising - Tim Allen	892.50
09/09/24	27655	Auto Check	US Foods (00002786)	5,350.76
09/09/24	101411	4636785	Food	898.19
		• Inventory - Food	Food	898.19
09/09/24	101411	4815823	Food	780.81
		• Inventory - Food	Food	780.81
09/09/24	101411	4815822	Food	3,517.42
		• Inventory - Food	Food	2,761.75
		• Inventory - Liquor	Liquor	460.11
		• Inventory - Beer	Beer	295.56
09/09/24	101411	4858306	Food	154.34
		• Inventory - Food	Food	154.34
09/12/24	27656	Auto Check	Paul Boskovich (00002984)	250.00
09/12/24	107404	24-912365	Runner	250.00
		• Event Contracted Labor	Runner- Nodal	250.00
09/12/24	27657	Auto Check	Rocky Mountain Rigging (00002781)	12,947.20
09/12/24	104370	Christian Nodal	Rigging	12,947.20
		• Reimbursed Outside Event Expense	Rigging - Nodal	12,947.20
09/12/24	27658	Auto Check	Virginia Duarte (00003960)	300.00
09/12/24	107404	24-0912366	Runner	300.00
		• Event Contracted Labor	Runner - Nodal	300.00
09/13/24	27659	Auto Check	Advanced Protection Services, Inc. (00002751)	167.13
09/13/24	107209	P83678	Alarm Maintenance	167.13
		• Security & Fire Alarm System	Alarm Maintenance	167.13
09/13/24	27660	Auto Check	Chisholm's Saw & Supply, Inc. (00002760)	91.23
09/13/24	107201	83324	Knives Maintenance	91.23
		• Tools & Supplies	Knives Maintenance	91.23
09/13/24	27661	Auto Check	Backstage Electric, Inc. (00002752)	2,982.00
09/13/24	107401	2802	Set Up for Tim Allen	2,982.00
		• Outside Event Expense	Set Up for Tim Allen	2,982.00

<u>Date</u>	<u>Check</u>	<u>Method</u>	<u>Name</u>	<u>Amount</u>
09/13/24	27662	Auto Check	Ford Audio Service (00003049)	7,500.00
09/13/24	3757		Sound System Rental	7,500.00
104370	• Reimbursed Outside Event Expense		Sound System Rental - Tim Allen	7,500.00
09/13/24	27663	Auto Check	RiverSide Dave, LLC (00002930)	VOID 0.00
09/19/24		Wire Transfer	Tate Entertainment Group, Inc. (00000798)	85,546.09
09/19/24	102150		Tim Allen Settle 9/13	85,546.09
	• A/P Settlements		Tim Allen Settle 9/13	85,546.09
09/20/24		Wire Transfer	King Beverage (00000486)	1,825.00
09/20/24	3015134		Beer	1,825.00
101413	• Inventory - Beer		Beer	1,825.00
09/20/24		Wire Transfer	Southern Glazer's of WA (00002855)	768.44
09/20/24	4808427		Liquor	768.44
101415	• Inventory - Liquor		Liquor	768.44
09/16/24	27664	Auto Check	RiverSide Dave, LLC (00002930)	3,920.40
09/16/24	1161		Lighting System	3,920.40
107401	• Outside Event Expense		Lighting System	3,920.40
09/19/24	27665	Auto Check	Apollo Heating and Air Conditioning (00002933)	5,927.93
09/19/24	KS-940060996		HVAC Repair	2,432.09
107210	• HVAC Repairs & Maintenance		HVAC Repair	2,432.09
09/19/24	KS-940060999		HVAC Repair	3,495.84
107210	• HVAC Repairs & Maintenance		HVAC Repair	3,495.84
09/19/24	27666	Auto Check	Apple Valley Broadcasting Inc (00003532)	382.50
09/19/24	277518-2		TV Ads - PBR	382.50
107402	• Event Advertising		TV Ads - PBR	382.50
09/19/24	27667	Auto Check	Brashear Electric, Inc. (00002756)	2,559.42
09/19/24	41825		Set Up for Chayanne	896.78
104327	• Reimbursed Contract Labor		Set Up for Chayanne	896.78
09/19/24	41854		Set Up for PBR	896.78
104327	• Reimbursed Contract Labor		Set Up for PBR	896.78
09/19/24	41855		Propane Tank Install	222.36
107212	• Building Repairs & Maintenance		Propane Tank Install	222.36
09/19/24	41850		Onsite Electrician	543.50
104327	• Reimbursed Contract Labor		Onsite Electrician - Chayanne	543.50
09/19/24	27668	Auto Check	Canon Financial Services, Inc (00002793)	479.38
09/19/24	34888569		Copier Contract	479.38
107105	• Printing / Copying		Copier Contract	239.69
			Due To/From TRCC	239.69
09/19/24	27669	Auto Check	Canon Solutions (00002757)	83.01
09/19/24	6009192287		Copier Maintenance - QHM	41.01
107105	• Printing / Copying		Copier Maintenance - JRA	41.01
09/19/24	6009235482		Copier Maintenance - UMT	42.00
107105	• Printing / Copying		Copier Maintenance - UMT	42.00

<u>Date</u>	<u>Check</u>	<u>Method</u>	<u>Name</u>		<u>Amount</u>
09/19/24	27670	Auto Check	Coca-Cola (00000213)		3,624.85
09/19/24	160084		Beverages		1,224.30
101411	• Inventory - Food		Beverages	1,224.30	
09/19/24	160085		Beverages Credit		-1,596.25
101411	• Inventory - Food		Beverages Credit	-1,596.25	
09/19/24	160401		Beverages		3,996.80
101411	• Inventory - Food		Beverages	3,996.80	
09/19/24	27671	Auto Check	Concessions Supply (00002860)		1,688.35
09/19/24	96685		Popcorn Machine Parts		353.49
107508	• F&B Equipment Repairs & Maintenance		PO4830 - Popcorn Machine Parts	353.49	
09/19/24	97160		Food		1,334.86
101411	• Inventory - Food		Food	1,334.86	
09/19/24	27672	Auto Check	DevFuzion (00000278)		323.38
09/19/24	25826		WiFi AP		135.88
107104	• IT Support Services		WiFi AP	135.88	
09/19/24	25801		Website Updates		187.50
107302	• Venue Marketing & Non-Event Advertising		Website Updates	187.50	
09/19/24	27673	Auto Check	Enterprise Rent A Car (00002931)		232.49
09/19/24	36825514		Car Rental		232.49
104315	• Reimbursed Event Rentals		Car Rental - Chayanne	232.49	
09/19/24	27674	Auto Check	Imagicomm Yakima (00003628)		3,374.50
09/19/24	112075-2		TV Ads		3,374.50
107402	• Event Advertising		TV Ads - PBR	3,374.50	
09/19/24	27675	Auto Check	KNDO/KNDU (00002825)		1,453.50
09/19/24	229260-3		TV Ads - PBR		1,453.50
107402	• Event Advertising		TV Ads - PBR	1,453.50	
09/19/24	27676	Auto Check	Michael Abbott (00002770)		180.00
09/19/24	448-015081		FiltaFry Fryer Service		180.00
107508	• F&B Equipment Repairs & Maintenance		FiltaFry Fryer Service	180.00	
09/19/24	27677	Auto Check	Pacific Breeze (00003739)		359.88
09/19/24	9019060		Odor Control		359.88
107304	• Contracted Services		Odor Control	359.88	
09/19/24	27678	Auto Check	Performance Digital (00002778)		2,000.00
09/19/24	4432		Digital Ads		2,000.00
101650	• 3rd Party Event Expense Holding Account		Digital Ads - River of Fire	2,000.00	
09/19/24	27679	Auto Check	Performance Systems Integration, LLC (00002981)		1,293.54
09/19/24	21629887		Kitchen Suppression Inspection		1,293.54
107209	• Security & Fire Alarm System		Kitchen Suppression Inspection	1,293.54	

Date	Check	Method	Name			Amount
09/19/24	27680	Auto Check	Reign Drop LLC (00003211)			481.43
09/19/24	101411	S4176-24-4586	Pizza		246.23	246.23
		• Inventory - Food	Pizza			
09/19/24	107510	RD-0912-BOXES	Pizza Boxes		235.20	235.20
		• F&B Tools, Supplies & Equipment	Pizza Boxes			
09/19/24	27681	Auto Check	Springhill Suites of Kennewick (00002726)			270.26
09/19/24	104370	Folio: 71225	Room Rental		270.26	270.26
		• Reimbursed Outside Event Expense	Room Rental - PBR		270.26	
09/19/24	27682	Auto Check	Stephens Media Group (00002844)			9,035.50
09/19/24	107402	IN-1240813990	Radio Ads		1,071.00	1,071.00
		• Event Advertising	Radio Ads - Tim Allen		1,071.00	
09/19/24	107402	IN-1240813926	Radio Ads		1,275.00	1,275.00
		• Event Advertising	Radio Ads - Tim Allen		1,275.00	
09/19/24	107402	IN-1240813947	Radio Ads - PBR		744.60	744.60
		• Event Advertising	Radio Ads - PBR		744.60	
09/19/24	107402	IN-1240813945	Radio Ads		744.60	744.60
		• Event Advertising	Radio Ads - PBR		744.60	
09/19/24	107402	IN-1240813948	Radio Ads		2,225.30	2,225.30
		• Event Advertising	Radio Ads - PBR		2,225.30	
09/19/24	107402	IN-1240813950	Radio Ads		2,975.00	2,975.00
		• Event Advertising	Radio Ads - PBR		2,975.00	
09/19/24	27683	Auto Check	Sunbelt Rentals, Inc. (00002783)			5,942.88
09/19/24	104370	158956289-0001	Rental Equipment		1,579.66	1,579.66
		• Reimbursed Outside Event Expense	Rental Equipment - PBR		1,579.66	
09/19/24	104370	159276122-0001	Forklift Rental		716.02	716.02
		• Reimbursed Outside Event Expense	Forklift Rental - Nodal		716.02	
09/19/24	104370	159149457-0003	Forklift Rental		674.88	674.88
		• Reimbursed Outside Event Expense	Forklift Rental - Nodal		674.88	
09/19/24	104370	159149457-0002	Manlift Rental		1,255.28	1,255.28
		• Reimbursed Outside Event Expense	Manlift Rental - Nodal		1,255.28	
09/19/24	104370	159149457-0001	Manlift Rental		1,717.04	1,717.04
		• Reimbursed Outside Event Expense	Manlift Rental - Nodal		1,717.04	
09/19/24	27684	Auto Check	Tennant Sales and Service Company (00002967)			204.18
09/19/24	107201	920719308	Hose & Valve		204.18	204.18
		• Tools & Supplies	Hose & Valve		204.18	
09/19/24	27685	Auto Check	US Foods (00002786)			7,622.37
09/19/24	107510	5129171	Kitchen Supplies		328.08	328.08
		• F&B Tools, Supplies & Equipment	PO4866 - Kitchen Supplies		328.08	
09/19/24	107510	5004969	Kitchen Supplies		736.42	736.42
		• F&B Tools, Supplies & Equipment	PO4866 - Kitchen Supplies		736.42	
09/19/24	107510	5004968	Kitchen Supplies		2,334.32	2,334.32
		• F&B Tools, Supplies & Equipment	PO4866 - Kitchen Supplies		2,334.32	
09/19/24	101411	5004967	Food		3,995.25	3,995.25
		• Inventory - Food	Food		3,523.40	
		• Inventory - Beer	Beer		436.72	
		• Inventory - Liquor	Liquor		35.13	
09/19/24	107510	5055710	Kitchen Supplies		173.85	173.85
		• F&B Tools, Supplies & Equipment	PO4866 - Kitchen Supplies		173.85	
09/19/24	107510	5091701	Kitchen Supplies		54.45	54.45
		• F&B Tools, Supplies & Equipment	PO4866 - Kitchen Supplies		54.45	
09/19/24	27686	Auto Check	VenuWorks, Inc. (00000894)			10,718.60
09/19/24	107306	19675	Management Fee		10,718.60	10,718.60
		• VenuWorks Management Fee	Management Fee		10,718.60	
09/19/24	27687	Auto Check	Vistar Corporation (00002787)			3,294.84
09/19/24	101411	73452246	Food		1,470.11	1,470.11
		• Inventory - Food	Food		1,470.11	
09/19/24	101411	73477155	Food Credit		-327.73	-327.73
		• Inventory - Food	Food Credit		-327.73	
09/19/24	101411	73373363	Food		2,152.46	2,152.46
		• Inventory - Food	Food		2,152.46	

Date	Check	Method	Name	Amount
09/19/24	27688	Auto Check	WCP Solutions (00002788)	100.40
	09/19/24	13786895	Urinal Screens	100.40
	107203	• Janitorial Supplies	PO7203 - Urinal Screens	100.40
09/21/24	27689	Auto Check	Backstage Electric, Inc. (00002752)	VOID 0.00
09/21/24	27690	Auto Check	Paul Boskovich (00002984)	250.00
	09/21/24	24-921365	Runner	250.00
	107404	• Event Contracted Labor	Runner - Trevi	250.00
09/21/24	27691	Auto Check	Rocky Mountain Rigging (00002781)	10,247.20
	09/21/24	Gloria Trevi	Rigging	10,247.20
	104370	• Reimbursed Outside Event Expense	Rigging - Gloria Trevi	10,247.20
09/21/24	27692	Auto Check	Virginia Duarte (00003960)	300.00
	09/21/24	24-1105366	Runner	300.00
	107404	• Event Contracted Labor	Runner - Trevi	300.00
09/21/24	27693	Auto Check	Backstage Electric, Inc. (00002752)	18,247.22
	09/21/24	2813	Set Up for Trevi	18,247.22
	107401	• Outside Event Expense	Set Up for Trevi	18,247.22
09/25/24		Wire Transfer	Legends MainGate, LLC (00003649)	15,645.75
	09/25/24	Merch bal to show PBR 2024		15,645.75
	102150	• A/P Settlements	PBR Merch prorate back to show	15,645.75
09/25/24		Wire Transfer	Washington State Department of Revenue (00002989)	15,110.51
	09/25/24	TOYO B&O taxes due Aug 2024		15,110.51
	102325	• B&O Tax Payable	TOYO B&O taxes due Aug 2024	6,388.38
	102310	• Sales Tax Payable - State	TOYO B&O taxes due Aug 2024	4,071.76
	107603	• B&O Taxes	TOYO B&O taxes due Aug 2024	4,650.37
09/23/24		Wire Transfer	CMN Events (00002688)	297,633.83
	09/23/24	Nodal Settle 9/12/24		297,633.83
	102150	• A/P Settlements	Nodal Settle 9/12/24	297,633.83
09/30/24		Wire Transfer	Live Nation (00000517)	252,995.81
	09/30/24	Trevi Settle 9/21		252,995.81
	102150	• A/P Settlements	Trevi Settle 9/21	252,995.81
09/30/24		Wire Transfer	American Payment Solutions - APS (00002969)	256.61
	09/30/24	APS TOYO Fees - Sept	APS TOYO Fees - Sept	256.61
	107310	• Credit Card Fees	APS TOYO Fees - Sept	256.61
09/30/24		Wire Transfer	Revel Systems (00003299)	3,231.75
	09/30/24	Concessions POS Fees - Sept	Concessions POS Fees - Sept	3,231.75
	107510	• F&B Tools, Supplies & Equipment	Concessions POS Fees - Sept	3,231.75
09/30/24		Wire Transfer	Fintech (00003296)	24.93
	09/30/24	TOYO Fintech Fees - Sept	TOYO Fintech Fees - Sept	24.93
	107514	• F&B Credit Card & Banking Fees	TOYO Fintech Fees - Sept	24.93
09/30/24	27694	Auto Check	Benton PUD (00000121)	20,921.59
	09/30/24	08/08/2024-09/08/2024	Small Gen Service - Sign	363.14
	107216	• Electricity	Small Gen Service - Sign	363.14
	09/30/24	08/08/2024-9/8/24	Large Gen Service	20,558.45
	107216	• Electricity	Large Gen Service	20,558.45

Date	Check	Method	Name	Amount
09/30/24	27695	Auto Check	Cascade Natural Gas (00000161)	3,840.63
	09/30/24	08/10/2024-09/09/24	Gen Com Service	3,840.63
	107217	• Natural Gas	Gen Com Service	3,840.63
09/30/24	27696	Auto Check	Cascade Natural Gas (00000161)	73.57
	09/30/24	08/10/2024-9/9/24	Gen Com Service	73.57
	107217	• Natural Gas	Gen Com Service	73.57
Total Paid:				<u>1,220,679.57</u>

TOYO Sterling Box Office Account

09/30/24		Wire Transfer	American Express Card Processing (00003298)	119.30
	09/30/24	Amex Box Office Fees - Sept	Amex Box Office Fees - Sept	119.30
	107310	• Credit Card Fees	Amex Box Office Fees - Sept	
			Credit Card Fees	119.30
Total Paid - TOYO Box Office:				<u>119.30</u>
Total Paid:				<u>1,220,798.87</u>

I, Jessica Platt, Finance Director, do hereby certify that the merchandise or services hereinbefore specified have been received, that any advance payment is due and payable pursuant to a contract or is available as an option for full or partial fulfillment of a contractual obligation and that the vouchers listed above are approved for payment this day.



Jessica Platt, Finance Director

The payments on this claims roster are comprised of the following:

Check numbers 27623-27696	\$ 257,527.27
Electronic transfers - Operations	963,271.60
Total	<u>\$ 1,220,798.87</u>

Exceptions:

Council Agenda Coversheet	Item Number: 4.e. Date: 11/5/2024 Item Type: General Business Item	Category: Consent Agenda
	Subject: Claims Roster: Columbia Park Golf Course Account Department: Finance	
<u>Recommendation</u> Staff recommends Council approve the Claims Roster for the Columbia Park Golf Course Account for September 2024. <u>Motion for Consideration</u> Motion to approve the Claims Roster for the Columbia Park Golf Course Account for September 2024 in the amount of \$42,579.93, comprised of check numbers 2879-2891 in the amount of \$3,584.39 and electronic transfers in the amount of \$38,995.54 <u>Summary</u> None <u>Alternatives</u> None <u>Fiscal Impact</u> \$42,579.93		
<u>Attachments:</u> 1. Claims Roster		

COLUMBIA PARK GOLF COURSE FUND
CHECK REGISTER
SEPTEMBER 2024

Check Number	Vendor Check Name	Check Date	Amount	System
NATIONWIDE 0924	NATIONWIDE	9/2/2024	\$515.16	EFT
ADPBEN 3785341	ADP TOTAL SOURCE (AUTOPAY)	9/10/2024	\$2,117.83	EFT
2832	KENNEWICK GOLF CORPORATION	9/3/2024	\$5,259.60	EFT
2833	YELP	9/3/2024	\$40.00	EFT
2834	SUN WILLOWS GOLF COURSE	9/3/2024	\$690.04	EFT
2836	AMANDA ATKIN	9/24/2024	\$120.00	EFT
2837	COLUMBIA POINT GOLF COURSE	9/24/2024	\$384.60	EFT
A00002879	CINTAS CORPORATION	9/10/2024	\$107.02	Check
A00002880	COLEMAN OIL COMPANY	9/10/2024	\$574.67	Check
A00002881	PEPSI-COLA BOTTLING OF PASCO	9/10/2024	\$391.30	Check
A00002882	POINTE PEST CONTROL	9/10/2024	\$179.36	Check
A00002883	WAMBEKE WINDOW WASHING	9/10/2024	\$125.00	Check
A00002884	WESTERN EQUIPMENT	9/10/2024	\$486.76	Check
A00002885	AMERICAN FOOTGOLF LEAGUE	9/24/2024	\$200.00	Check
A00002886	CASTLE ROCK SOLUTIONS	9/24/2024	\$114.40	Check
A00002887	CINTAS CORPORATION	9/24/2024	\$145.51	Check
A00002888	CITY OF KENNEWICK	9/24/2024	\$389.57	Check
A00002889	MERCANTILE SYSTEMS, INC.	9/24/2024	\$250.00	Check
A00002890	NORTHWEST GOLF CARS	9/24/2024	\$239.39	Check
A00002891	PEPSI-COLA BOTTLING OF PASCO	9/24/2024	\$381.41	Check
WA DOR 0042624120	WASHINGTON STATE DEPARTMENT OF REVENUE	9/20/2024	\$7,404.58	EFT
Paid by ACH	ADP TOTAL SOURCE (AUTOPAY)	9/6/2024	\$8,431.48	EFT
Paid by ACH	ADP TOTAL SOURCE (AUTOPAY)	9/20/2024	\$9,142.17	EFT
Paid by ACH	ELAN (MONTHLY CREDIT CARD CHGS)	9/30/2024	\$3,167.85	EFT
Bank Deduction	MERCHANT SERVICES	9/3/2024	\$1,670.42	EFT
Bank Deduction	US Bank	9/16/2024	\$51.81	EFT
			\$42,579.93	

I, Jessica Platt, Finance Director, do hereby certify that the merchandise or services hereinbefore specified have been received, that any advance payment is due and payable pursuant to a contract or is available as an option for full or partial fulfillment of a contractual obligation and that the vouchers listed above are approved for payment this day.

Jessica Platt

Jessica Platt, Finance Director

The payments on this claims roster are comprised of the following:

Check numbers 2879-2891	\$	3,584.39
Electronic transfers	\$	38,995.54
Total	\$	42,579.93

Exceptions:

<u>Vendor Check Name</u>	<u>Check Dated</u>	<u>Amount</u>	<u>Debit</u>	<u>Credit</u>
NATIONWIDE	9/2/2024		\$515.16	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		515.16
PURCH	18400-000-244-00	PREPAID GEN LIAB INS	\$515.16	
ADP TOTAL SOURCE (AUTOPAY)	9/10/2024		\$2,117.83	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$2,117.83
PURCH	50800-060-244-00	HEALTH BENEFITS	\$2,117.83	
KENNEWICK GOLF CORPORATION	9/3/2024		\$5,259.60	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$5,259.60
PAY	59600-080-244-00	ACCOUNTING FEES	\$1,315.52	
PURCH	59610-080-244-00	MANAGEMENT FEE	\$3,944.08	
YELP	9/3/2024		\$40.00	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$40.00
PURCH	53100-080-244-00	ADVERTISING & MARKETING	\$40.00	
SUN WILLOWS GOLF COURSE	9/3/2024		\$690.04	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$690.04
PURCH	47150-050-244-00	COGS - MERCHANDISE	\$690.04	
AMANDA ATKIN	9/24/2024		\$120.00	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$120.00
PURCH	52100-050-244-00	TELECOMMUNICATIONS	\$120.00	
COLUMBIA POINT GOLF COURSE	9/24/2024		\$384.60	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$384.60
PURCH	50100-060-244-00	SALARIES	\$192.30	
PURCH	50100-080-244-00	SALARIES	\$192.30	
CINTAS CORPORATION	9/10/2024		\$107.02	
PAY	20006-000-244-00	ACCOUNTS PAYABLE - GP		\$107.02
PURCH	51900-060-244-00	CONTRACT SERVICES	\$40.24	
PURCH	51900-080-244-00	CONTRACT SERVICES	\$66.78	
COLEMAN OIL COMPANY	9/10/2024		\$574.67	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$574.67
PURCH	58300-050-244-00	FUEL & OIL GOLF	\$120.40	
PURCH	58300-060-244-00	FUEL & OIL MAINTENANCE	\$454.27	
PEPSI COLA BOTTLING CO. OF PASCO	9/10/2024		\$391.30	
PAY	20006-000-244-00	ACCOUNTS PAYABLE - GP		\$391.30
PURCH	49200-070-244-00	COGS - SOFT BEVERAGE	\$362.10	
PURCH	49150-070-244-00	COGS - PACKAGED FOOD	\$15.20	
PURCH	51900-060-244-00	CONTRACT SERVICES	\$14.00	
POINTE PEST CONTROL	9/10/2024		\$179.36	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$179.36
PURCH	51900-050-244-00	CONTRACT SERVICES	\$89.68	
PURCH	51900-060-244-00	CONTRACT SERVICES	\$89.68	
WAMBEKE WINDOW WASHING	9/10/2024		\$125.00	
PAY	20006-000-244-00	ACCOUNTS PAYABLE - GP		\$125.00
PURCH	51900-080-244-00	CONTRACT SERVICES	\$125.00	
WESTERN EQUIPMENT	9/10/2024		\$486.76	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$486.76
PURCH	58100-060-244-00	EQUIPMENT PARTS	\$486.76	
AMERICAN FOOTGOLF LEAGUE	9/24/2024		\$200.00	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$200.00
PURCH	51400-080-244-00	PROFESSIONAL DUES & FEES	\$200.00	
CASTLE ROCK SOLUTIONS	9/24/2024		\$114.40	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$114.40
PURCH	51900-050-244-00	CONTRACT SERVICES	\$114.40	
CINTAS CORPORATION	9/24/2024		\$145.51	
PAY	20006-000-244-00	ACCOUNTS PAYABLE - GP		\$145.51
PURCH	51900-060-244-00	CONTRACT SERVICES	\$58.41	

<u>Vendor Check Name</u>	<u>Check Dated</u>	<u>Amount</u>	<u>Debit</u>	<u>Credit</u>
PURCH	51900-080-244-00	CONTRACT SERVICES	\$87.10	
CITY OF KENNEWICK	9/24/2024		\$389.57	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$389.57
PURCH	52210-060-244-00	IRRIGATION ELECTRICITY	\$350.15	
PURCH	52200-060-244-01	UTILITIES - GAS & ELECTRIC	\$39.42	
MERCANTILE SYSTEMS, INC.	9/24/2024		\$250.00	
PAY	20006-000-244-00	ACCOUNTS PAYABLE - GP		\$250.00
PURCH	51900-080-244-00	CONTRACT SERVICES	\$250.00	
NORTHWEST GOLF CARS	9/24/2024		\$239.39	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$239.39
PURCH	54900-050-244-00	REPAIR GOLF CART OUTSIDE LABOR	\$239.39	
PEPSI COLA BOTTLING CO. OF PASCO	9/24/2024		\$381.41	
PAY	20006-000-244-00	ACCOUNTS PAYABLE - GP		\$381.41
PURCH	49200-070-244-00	COGS - SOFT BEVERAGE	\$308.16	
PURCH	49150-070-244-00	COGS - PACKAGED FOOD	\$62.75	
PURCH	51900-060-244-00	CONTRACT SERVICES	\$10.50	
WASHINGTON STATE DEPARTMENT OF REVENUE	9/20/2024		\$7,404.58	
PAY	20005-000-244-00	ACCOUNTS PAYABLE - GP		\$7,404.58
PURCH	20300-000-244-00	SALES TAX PAYABLE	\$5,489.73	
PURCH	91101-000-244-00	OTHER STATE TAX	\$1,914.85	
ADP TOTAL SOURCE (AUTOPAY)	9/6/2024		\$8,431.48	
PAY	50000-000-244-00	TEMPORARY ACCT		\$8,431.48
PURCH	50200-050-244-00	HOURLY WAGES	\$3,602.25	
PURCH	50200-060-244-00	HOURLY WAGES	\$3,969.52	
PURCH	50400-050-244-00	SALES COMMISSIONS	\$110.00	
PURCH	50800-060-244-00	HEALTH BENEFITS		\$396.16
PURCH	50950-050-244-00	COMBINED ADMIN, TAXES, W/C	\$568.66	
PURCH	50950-060-244-00	COMBINED ADMIN, TAXES, W/C	\$553.74	
PURCH	50950-080-244-00	COMBINED ADMIN, TAXES, W/C	\$23.47	
ADP TOTAL SOURCE (AUTOPAY)	9/20/2024		\$9,142.17	
PAY	50000-000-244-00	TEMPORARY ACCT		\$9,142.17
PURCH	50200-050-244-00	HOURLY WAGES	\$4,453.20	
PURCH	50200-060-244-00	HOURLY WAGES	\$3,811.88	
PURCH	50800-060-244-00	HEALTH BENEFITS		\$396.16
PURCH	50950-050-244-00	COMBINED ADMIN, TAXES, W/C	\$684.37	
PURCH	50950-060-244-00	COMBINED ADMIN, TAXES, W/C	\$534.05	
PURCH	50950-080-244-00	COMBINED ADMIN, TAXES, W/C	\$54.83	
ELAN (MONTHLY CREDIT CARD CHGS)	9/30/2024		\$3,167.85	
PAY	50000-000-244-00	TEMPORARY ACCT		\$3,167.85
PURCH	49200-070-244-00	COGS - SOFT BEVERAGE	\$79.96	
PURCH	51500-060-244-00	TRAVEL LODGING & ENTERTAINMENT	\$587.21	
PURCH	51500-080-244-00	TRAVEL LODGING & ENTERTAINMENT	\$1,575.32	
PURCH	51900-050-244-00	CONTRACT SERVICES	\$170.32	
PURCH	52100-060-244-00	TELECOMMUNICATIONS	\$62.55	
PURCH	52300-060-244-00	GARBAGE & DEBRIS REMOVAL	\$121.33	
PURCH	52500-080-244-00	OFFICE SUPPLIES	\$93.45	
PURCH	53100-080-244-00	ADVERTISING & MARKETING	\$106.12	
PURCH	55500-060-244-00	GOLF CART SUPPLIES	\$152.29	
PURCH	58400-060-244-00	IRRIGATION MISCELLANEOUS	\$219.30	
MERCHANT SERVICES	9/1/2024		\$1,670.42	
PAY	10420-000-244-00	OPERATING CHECKING ACCT - US Bank		\$1,670.42
PURCH	54000-080-244-00	BANK CHARGES	\$1,670.42	
US Bank	9/16/2024		\$51.81	
PAY	10420-000-244-00	OPERATING CHECKING ACCT - US Bank		\$51.81
PURCH	54000-080-244-00	BANK CHARGES	\$51.81	

Council Agenda Coversheet	Item Number: 4.f. Item Type: General Business Item Subject: Payroll Roster: For the Pay Period Ending 10/15/2024 Department: Finance Date: 11/5/2024	Category: Consent Agenda
		
<u>Recommendation</u> Staff recommends that Council approve the Payroll Rosters as presented. <u>Motion for Consideration</u> Motion to approve the Payroll Roster for the pay period ending 10/15/2024. <u>Summary</u> None. <u>Alternatives</u> None. <u>Fiscal Impact</u> 10/15/2024 Total: \$2,740,775.64		
Attachments: 1. Roster		

Payroll Roster for Pay Period Ending 10/15/2024

All Departments:

City Attorney	29,529.95
City Council	5,202.50
City Manager	13,236.12
Civil Service	3,648.30
Community Planning	20,268.54
Economic Development	7,391.20
Engineering	57,776.04
Finance	59,078.28
Fire	115,103.82
Human Resources	18,613.48
Management Services	93,271.66
Non-Departmental	2,287.34
Parks, Recreation & Facilities	145,402.67
Police	534,880.71

Subtotal - General Fund**1,105,690.61**

BI-PIN	14,985.46
Building Safety	52,766.51
Community Development	3,428.90
Criminal Justice	87,066.44
Equipment Rental	13,225.36
Medical Services	467,860.03
Risk Management	4,102.07
Stormwater	25,523.74
Street	36,202.55
Water & Sewer	146,354.80

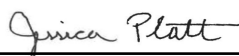
Subtotal - Other Funds**851,515.86****Total Salaries and Wages****1,957,206.47****Benefits**

Dental Insurance	25,832.45
DRS Retirement	133,444.60
Employee Assistance Program	51.63
Life Insurance	5,193.64
Long-Term Disability Insurance	6,079.59
Medical Expense Reimbursement Plan	3,262.50
Medical Insurance	342,439.64
Medicare	27,535.81
MissionSquare Deferred Compensation	86,093.23
Social Security (OASDI)	84,952.30
Vision Insurance	3,522.97
WA Paid Family & Medical Leave	3,949.52
Worker's Compensation Insurance	61,211.29

Total Benefits**783,569.17****Grand Total****\$2,740,775.64**

I, Jessica Platt, Finance Director, at the direction of the Council, do hereby certify that the Payroll hereinabove specified is approved for payment in the amount of \$2,740,775.64 comprised of check numbers 77540 through 77554 and direct deposit numbers 228825 through 229279.

Approved for payment:



Jessica Platt, Finance Director

Council Agenda Coversheet	Item Number: 4.g.	Date: 11/5/2024	Category: Consent Agenda
	Item Type:	Contract/Agreement/Lease	
	Subject:	Acceptance of Work: 2023 City-Wide Asphalt Overlay Project	
	Department:	Public Works	
	Project #	P2301-23	

Recommendation

Staff recommends Council accept the work of Granite Construction Company for contract P2301-23, 2023 City-Wide Asphalt Overlay, in the amount of \$1,781,011.03.

Motion for Consideration

Motion to accept the work of Granite Construction Company for contract P2301-23, 2023 City-Wide Asphalt Overlay, in the amount of \$1,781,011.03.

Summary

This project is for HMA improvements for the following streets:

- W. Canal Dr. (N. Columbia Center Blvd. to N. Kellogg St.)
- W. 10th Ave. (S. Union St to US-395)

Work involved planing (grinding), HMA overlay, patching of miscellaneous failed areas, concrete sidewalk ramp upgrades, pavement lane striping, cross walks, stop bars, markings, cast-in-place traffic curbing and other related work, all in accordance with the City of Kennewick Standards and Specifications, the Washington State Department of Transportation Standards and Specifications, and in compliance with the Americans with Disabilities Act.

Washington State DOT partnered in a small portion of this project which involved milling and overlaying the right turn south-bound lane on SR395 at the W. 10th Ave. intersection.

This project had one changeorder to compensate for the costs associated with the addition of three ADA ramps that needed to be replaced due to not meeting ADA requirements.

Quantity changes included increases in Remove, Replace, and Adjust Existing Valve Box, Remove, Replace, and Adjust Existing Monument, Remove and Install New Monument, Concrete, and Brass Cap, Pedestrian Ramp (Type Parallel “A”), 48-inch x 24-inch Detectable Warning Surface, 4-Inch Thick Concrete Sidewalk, Pedestrian Push Button Post and Foundation, 1-Inch Conduit With Wire (For PPB), Dig and Verify, Mounting Base, 8-Inch Pavement Lane Markings (White) – Hot Thermoplastic Plastic Type A, Left Arrow WSDOT Type 2SL – Preformed Thermoplastic, Straight Arrow WSDOT Type 1S – Preformed Thermoplastic, and Raised Pavement Markings. Quantity changes included decreases in HMA Class 3/8” PG 64H-28, Asphalt Patching (3 ½- Inch Depth), Adjust Valve Box, Adjust Monument, Remove Traffic Concrete Curb, Painted Dual-Faced Concrete Curb, Concrete Curb and Gutter Removal, Concrete Sidewalk/Pedestrian/Driveway Removal (Incl. Sawcuts and Disposal), Concrete Curb and Gutter, Concrete Pedestrian Curb, 4-Inch Pavement Lane Markings (White) – Hot Thermoplastic Plastic Type A, 6-Inch Pavement Lane Markings (White) – Hot Thermoplastic Plastic Type A, 12-Inch Pavement Lane Markings (Yellow) – Hot Thermoplastic Plastic Type A, 18-Inch Pavement Lane Markings (White) – Preformed Thermoplastic, 24-Inch x 96-Inch Crosswalk Blocks – Preformed Thermoplastic, Tubular Markers (White), and Tubular Markers (Yellow).

Original Contract	\$1,952,105.45
Change Orders	\$ 5,076.00
Quantity Changes	- \$ 176,170.42
Total	\$1,781,011.03 (8.8% below the original contract)

Alternatives

None recommended.

Fiscal Impact

Arterial Street Fund - 2023 Local Pavement Preservations	\$1,757,000
WSDOT Participation	\$24,000

Attachments:

- 1. Map



Council Agenda Coversheet	Item Number: 4.h.	Date: 11/5/2024	Category: Consent Agenda
	Item Type:	Contract/Agreement/Lease	
	Subject:	Acceptance of Work: Deschutes Ave and Columbia Center Blvd Intersection Improvements	
	Department:	Public Works	
	Project #	P2010-23	

Recommendation

Staff recommends Council accept the work of Ellison Earthworks, LLC for contract P2010-23, Deschutes Ave. and Columbia Center Blvd. Intersection Improvements, in the amount of \$2,142,618.05.

Motion for Consideration

Motion to accept the work of Ellison Earthworks, LLC for contract P2010-23, Deschutes Ave. and Columbia Center Blvd. Intersection Improvements, in the amount of \$2,142,618.05.

Summary

This project constructed a new traffic signal system to accommodate a new right-turn lane for added turning capacity for west-bound traffic turning northbound onto Columbia Center Blvd. In addition, this project installed a roundabout at Colorado St. and Deschutes Ave. The work included the installation of curb, gutter, sidewalk, traffic curbing, concrete traffic islands, driveways, storm drainage, HMA overlay and a new signal system.

This project had five change orders which included: 1 - Lost production due to encountering un-located underground Ziplly and Benton PUD utilities. 2 - Costs associated with 5.0'x5.0' power vault excavation for underground utilities of Benton PUD. 3 - Costs associated with a required design change due to an error in utility locates at the intersection of W. Deschutes Ave and N. Colorado St. 4 - Landscape restoration due to encountering un-located underground Ziplly and Benton PUD utilities. 5 - Costs associated with Removing 5 LF of dual face curb. (Utilities were billed their portion of all costs)

Quantity changes included increase in Abandon Existing Commercial Sign Foundation, Saw cutting Asphalt, Removing Asphalt, Asphalt patching behind sidewalk, Grinding pavement, Adjust valve box, HMA overlay, Curb and Gutter removal, Sidewalk/Driveway removal, Concrete curb and gutter, Outside rolled curb, Type E-1 Curb, Concrete pedestrian curb, Concrete sidewalk and refuge island, 10-inch Storm drain pipe, Trench safety system, 23-inch catch basin, Connect to existing SD manhole, Remove and dispose existing catch basin, Dig and Verify, Install LED luminaires, Install light pole, Wiring Conduit, Utilities trenching, pavement marking and signs/post.

Original Contract	\$ 2,077,667.25
Change Orders	\$ 33,475.48
Quantity Changes	\$ 31,465.32
Total	\$ 2,142,618.05 (3.1% over the original contract)

Alternatives

None recommended.

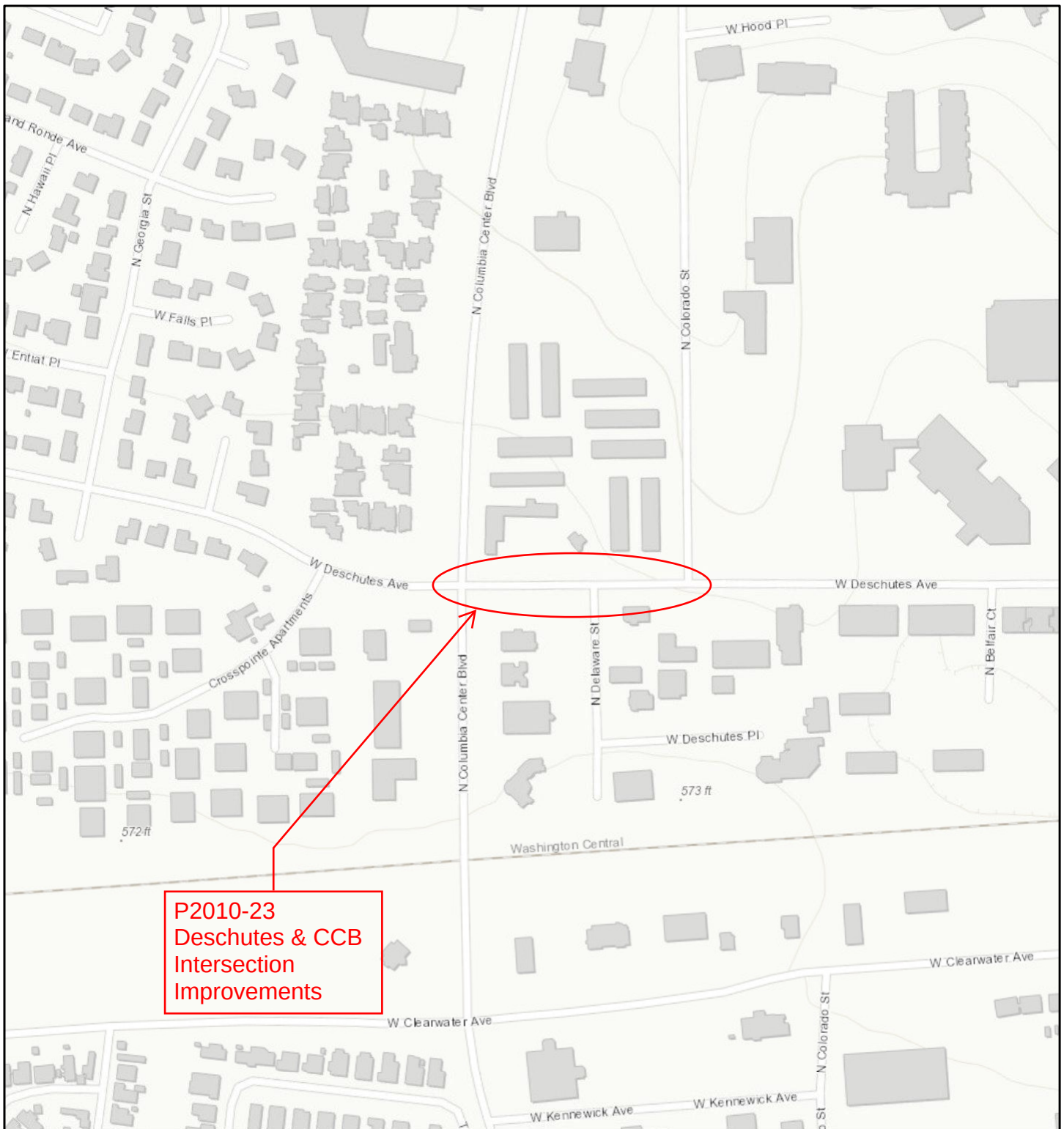
Fiscal Impact

State TIB Grant:	\$ 1,472,000
Port of Kennewick Cost Share:	\$ 207,990 (Vista Field Development Agreement)
Private Utilities:	\$ 95,770
City of Kennewick:	\$ 366,857

Attachments:

1. Map

Vicinity Map



June 12, 2023

This plan is suitable for informational use only. City of Kennewick accepts no liability for any error whatsoever.



1 inch = 340 feet

1:4,080

0 0.03 0.06 0.12 mi
0 0.05 0.1 0.2 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Council Agenda Coversheet	Item Number: 4.i. Date: 11/5/2024 Item Type: General Business Item	Category: Ordinance/Reso Consent Agenda
	Subject: Resolution: 2017 Water System Plan (WSP) Amendment Department: Public Works Resolution #:	
<u>Recommendation</u> Staff recommends that the City Council adopt the resolution as presented. <u>Motion for Consideration</u> Motion to adopt the resolution as presented. <u>Summary</u> A public forum was held on October 8, 2024, seeking input on the City of Kennewick Water System Plan (WSP) Amendment per WAC 246-290-100(8). No comments were received prior or at the forum. The WSP was originally adopted via Resolution 17-02 on February 7, 2017. Washington State Department of Health (DOH) requires amendments to water system plans to allow an agency to apply for DOH DWSRF funding for projects not identified within the originally adopted plan. The Public Works Department has amended the plan to specifically identify and include the need for treatment of “Per- and Poly-Fluoroalkyl Substances” (PFAS) at the City’s Ranney Collector 5 (RC5) water supply facility. A DOH DWSRF application for funding is planned to follow the adoption of the WSP Amendment, with a November 30, 2024, deadline for this calendar year. Depending on qualifications, grant funds may be part of the available funding. <u>Alternatives</u> None recommended. <u>Fiscal Impact</u>		
Attachments: 1. Resolution 2. Exhibit A		

CITY OF KENNEWICK
RESOLUTION NO. 24-_____

A RESOLUTION ADOPTING THE 2017 WATER SYSTEM PLAN AMENDMENT
AND REPEALING RESOLUTION 17-02

WHEREAS, Resolution 17-02 originally adopted the “City of Kennewick Water System Plan”, dated February 2017, for the City’s water service area; and

WHEREAS, the Washington State Department of Health (DOH) requires full updates of water system plans every ten years; and

WHEREAS, the Washington State Department of Health (DOH) requires amendments to water system plans to allow an agency to apply for DOH DWSRF funding for projects not identified within the originally adopted plan; and

WHEREAS, the City of Kennewick Public Works Department has amended the plan to specifically identify and include the need for treatment of “Per- and Poly-Fluoroalkyl Substances” (PFAS) at the City’s Ranney Collector 5 (RC5) water supply facility; and

WHEREAS, the WSP Amendment has been submitted and approved by the Washington State DOH; and

WHEREAS, WAC 246-290-100(8) requires a public comment period be held to adopt the 2017 Water System Plan (WSP) Amendment; and

WHEREAS, on October 8, 2024, a public forum was held regarding the 2017 Water System Plan Amendment; NOW, THEREFORE,

BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON that the 2017 Water System Plan Amendment is attached hereto as Exhibit “A”, incorporated herein by this reference, and is hereby adopted by the City Council for the City of Kennewick.

BE IT FURTHER RESOLVED that Resolution 17-02 is hereby repealed in its entirety.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, this 5th day of November, 2024, and signed in authentication of its passage this 5th day of November, 2024.

Attest:

GRETLE J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

RESOLUTION NO. 24-_____ filed and
recorded in the office of the City Clerk of
the City of Kennewick Washington, this
5th day of November, 2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk



EXHIBIT A

City of Kennewick

WATER COMPREHENSIVE PLAN



Prepared By



Amended: September 2024
Originally Prepared: August 2016
VOLUME 1 of 2

City of Kennewick Water Comprehensive Plan

Originally Prepared: August 2016
Amended: September 2024

Mayor
Gretl Crawford

Mayor Pro Tem
Charles Torelli

City Council
Loren Anderson
Brad Beauchamp
Jim Millbauer
John Trumbo
Jason McShane

Public Works Director
Cary Roe, PE

Utility Services Manager
Jeremy Lustig, PE

City of Kennewick
1010 E Chemical Drive
Kennewick, WA 99336

Prepared by:



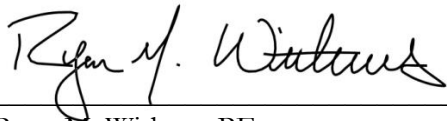
RH2 Engineering, Inc.
114 Columbia Point Drive, Suite C
Richland, WA 99352

Contact: Ryan Withers, PE
(509) 392-6503



CERTIFICATION

This Water Comprehensive Plan for the City of Kennewick was prepared under the direction of the following registered professional engineers.



Ryan M. Withers

Ryan M. Withers, PE



Originally
Certified:
02/07/2017

Amended:
9/##/2024



Paul R. Cross

Paul R. Cross, PE



Originally
Certified:
02/07/2017

Amended:
9/##/2024

CITY OF KENNEWICK WATER COMPREHENSIVE PLAN

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VOLUME 1 OF 2

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EXECUTIVE SUMMARY

PURPOSE OF THE PLAN

The City of Kennewick's (City) water system is a major infrastructure, much of which is invisible to the customers that receive its water. The water system requires qualified staff to operate and maintain an ongoing capital improvement program to replace old components to meet the requirements mandated by federal and state laws. The primary purpose of the City's Water Comprehensive Plan (WCP) is to identify and schedule water system improvements that correct existing system deficiencies and ensure a safe and reliable supply of water to current and future customers. This WCP complies with Washington State Department of Health (DOH) regulations under Chapter 246-290 Washington Administrative Code (WAC), which requires water purveyors to update their water system plans every 6 years. In anticipation of proposed changes to the water system planning requirements to extend the planning horizon to 10 years, this WCP was prepared to serve as a 6-year and 10-year document. The WCP is anticipated to be approved by DOH in early 2017. Therefore, the last year of the planning period of this WCP is 2027, which is 10 years beyond the anticipated approval date of the WCP. The WCP was amended in 2024 to include improvements related to PFAS contamination in the City's Ranney Collector 4 and 5 Wells.

CHANGES SINCE THE LAST WCP UPDATE

The City's previous WCP was approved by DOH in 2010. The following changes have occurred since the last update and affect water system planning for the City.

- The DOH *Water System Design Manual* was updated in December 2009. The revisions primarily address water demand requirements and water system physical capacity analysis, both of which affect the City.
- The Benton County (County) *Comprehensive Plan* was updated in 2013. The update projected future growth for the City through 2034.
- Drinking water regulations are continually evolving to ensure that water purveyors are providing a safe and reliable water supply to their customers. Additional water quality monitoring requirements and revisions to existing regulations, such as the Groundwater Rule, Stages 1 and 2 Disinfectants/Disinfection Byproducts Rule, and the revised Coliform Rule have been implemented since the City's last WCP was completed.

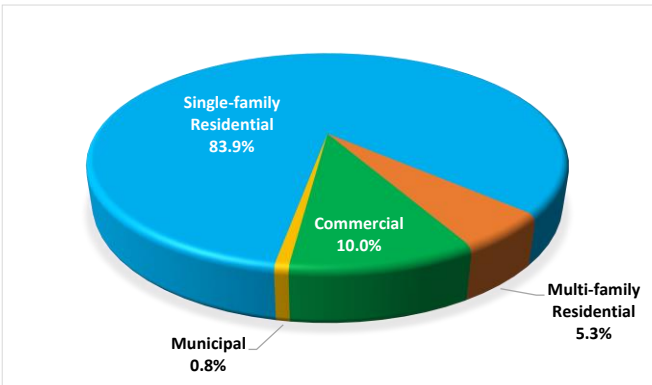
SUMMARY OF KEY ELEMENTS

This WCP presents a description of the existing water system and service area, a forecast of future water demands, policies and design criteria for water system operation and improvements, the operations and maintenance program, staffing requirements, a schedule of improvements, and a financial plan to accomplish the improvements. The WCP also includes several ancillary elements that include a water use efficiency plan, a water quality monitoring plan, a wellhead protection plan, a watershed control plan, and a cross-connection control program. A summary of the key issues related to these elements is provided in the following sections.

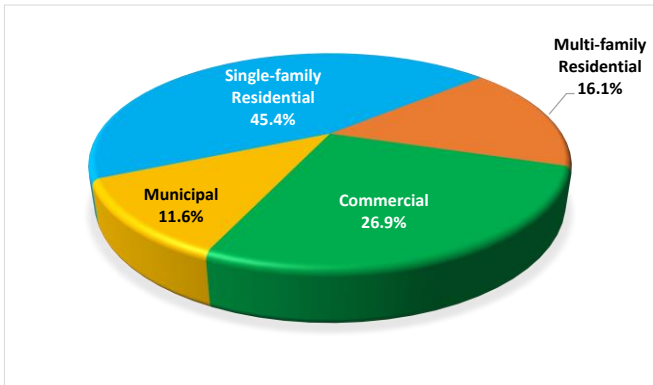
WATER SERVICE AREA

The City provides water service to approximately 80,986 people throughout its water service area boundary, which extends beyond the City’s corporate limits. The City is responsible for providing public water service, utility management, and water system development within this area. The City will provide new water service within the City limits and where there are existing water mains (i.e., the retail water service area). Requests for new water service outside of the City limits but within the Urban Growth Area (UGA), where there are no existing water mains fronting the property, will only be granted after the area is annexed to the City or upon completion of an annexation agreement.

In 2014, the City provided water service to an average of 23,801 connections, which were mainly comprised of single-family connections. Single-family connections represent approximately 84 percent of all accounts; however, the single-family class only consumed 45 percent of all water supplied to the system in 2014.



2014 Water Connections



2014 Water Consumption

EXISTING WATER SYSTEM

The City’s water system was initially established in 1949 when the City acquired the Pacific Power and Light Company water system and the Kennewick Irrigation District (KID) water system. In 1949, the water system was supplied by Columbia River water pumped into the water system without filtration, and the Layton Park Wells. Between 1958 and 1960, the City installed five Ranney collector wells on Clover Island with an original combined capacity of 24.5 million gallons per day (MGD). Three of the Ranney wells have been removed from service. The current maximum pumping and treatment capacity of the remaining Ranney wells is approximately 15 MGD, but current groundwater and turbidity conditions limit the combined capacity of the City’s Ranney wells to approximately 8.7 MGD. The City’s Columbia River Water Treatment Plant (WTP) was constructed in 1980 with an original capacity of 7.5 MGD. The facility’s capacity has been expanded to 15 MGD and has the infrastructure to be expanded to 30 MGD in the future. A summary of the City’s existing sources and their capacities is shown in **Table ES-1**.

Table ES-1
Supply Facilities Summary

Name	Discharge Pressure Zone	Total Pumping and Treatment Capacity (gpm)	Physical Pumping Capacity (gpm)	Year Installed	Well Depth (feet)	Caisson Diameter (inches)	Pump Type	Pump Motor Size (hp)
Ranney Collector No. 4	Zone 1	1,042	1,042	1959	51.7	20	(2) Vertical Turbine	75 100
Ranney Collector No. 5	Zone 1	6,944	5,000	1960	41.4	20	(4) Vertical Turbine	(4) 350
WTP Intake (Low Lift BPS)	Clearwell	10,417	10,417	1980	---	---	(4) Vertical Turbine	(2) 25 (2) 50

The City's water system has ten booster pump station (BPS) facilities that provide supply throughout the water system. A summary of these pumping facilities is shown in **Table ES-2**.

Table ES-2
Booster Pump Station Facilities Summary

Name	Suction Pressure Zone	Discharge Pressure Zone	Total Pumping Capacity (gpm)	Number of Pumps	Pump Motor Size (horsepower)
Water Treatment Plant BPS	Clearwell	Zone 1	10,417	4	(2) 250, (2) 400
Golf Course BPS	Zone 1	Zone 2	9,900	3	(3) 250
19th and Olympia BPS	Zone 1	Zone 2	10,000	5	(5) 150
47th and Olympia BPS	Zone 2	Zone 3	7,300	3	(1) 75, (2) 150
18th and Kellogg BPS	Zone 2	Zone 3	7,700	3	(1) 75, (2) 150
54th and Olympia BPS	Zone 3	Zone 4	4,400	3	(1) 40, (2) 100
28th and Irving BPS	Zone 3	Zone 4	3,400	3	(1) 40, (2) 100
Thompson Hill BPS	Zone 4	Zone 5	5,300	3	(1) 60, (2) 125
46th and Olson BPS ¹	Zone 4	Zone 5	2,555	3	(1) 15, (1) 40, (1) 100
Zone 6 BPS ²	Zone 5	Zone 6	2,238	3	(1) 7.5, (2) 75

(1) Also referred to as the Canyon Lakes BPS.

(2) No water service connections are currently located within Zone 6, and therefore the Zone 6 BPS does not currently operate.

The City's water system has 13 storage facility sites that provide direct water storage to 6 pressure zones. A summary of the City's storage facilities is shown in **Table ES-3**.

Table ES-3
Storage Facilities Summary

Name	Pressure Zone	Year Constructed	Material	Capacity (MG)	Diameter (feet)	Base Elevation (feet)	Overflow Elevation (feet)	Overall Height (feet)
WTP Clearwell	Clearwell	1980	Concrete	0.31	---	321	338.5	17.50
19th and Olympia E.	Zone 1	1949	Concrete	2.00	151	517	532	15.00
19th and Olympia W.	Zone 1	1949	Concrete	4.00	213	517	532	15.00
47th and Olympia	Zone 2	1972	Concrete	5.00	170	624	654	30.00
18th and Kellogg	Zone 2	Unknown	Concrete	10.00	250	624	652	28.00
18th and Kellogg	Zone 2	1960	Steel	0.50	54	625	654	29.00
54th and Olympia	Zone 3	1978	Concrete	1.00	95	760	780	20.00
28th and Irving	Zone 3	1978	Concrete	1.00	95	750	780	30.00
Kansas	Zone 3	2006	Concrete	4.00	153	750	780	30.00
Canyon Lakes	Zone 4	1980	Concrete	1.00	58.0 x 58.0 ¹	889	910	21.00
Thompson Hill	Zone 4	2015	Concrete	3.00	143	888	913	25.00
Zone 5 Reservoir	Zone 5	2010	Concrete	1.00	60.0 x 60.0 ¹	1,024	1,045	21.00

(1) Rectangular dimensions

The City's water system contains more than 409 miles of water main ranging in size from 2 inches in the distribution system to 48 inches at the City's supply facilities. As shown in **Table ES-4**, most of the water main (approximately 48 percent) within the service area is 8 inches in diameter.

Table ES-4
Water Main Diameter Inventory

Diameter (inches)	Length (feet)	Percentage of Total
4 or smaller	98,753	4.6%
6	458,864	21.2%
8	1,046,234	48.4%
10	36,169	1.7%
12	224,160	10.4%
14	2,578	0.1%
16	177,946	8.2%
18	16,432	0.8%
20	4,985	0.2%
24	15,801	0.7%
30	6,495	0.3%
32	10	0.0%
36	10,210	0.5%
42	980	0.0%
48	1,618	0.1%
Unknown	59,257	2.7%
Totals	2,160,492	100%

PAST WATER USAGE

The City has experienced a trend of decreasing per capita water demand since 2007, primarily due to water use efficiency practices, including new buildings with low flow plumbing fixtures, and the repair of water system leaks. Between 2007 and 2014, the City's water service area population increased by more than 19 percent, but the volume of water supplied to the system only increased by approximately 5 percent. **Table ES-5** presents the City's annual net water supply, the average day demand (ADD), water service area population, and average demand per capita from 2007 through 2014.

Table ES-5
Historical Water Supply and System Demand

Year	Net Supply (MG)	Average Day Demand (gpm)	Water Service Area Population	Average Demand Per Capita (gal/day/capita)
2007	3,775.7	7,183.7	67,871	152
2008	3,727.5	7,091.9	68,128	150
2009	3,941.5	7,499.0	70,871	152
2010	3,666.6	6,976.1	72,940	138
2011	3,536.3	6,728.2	76,356	127
2012	3,748.2	7,131.3	77,078	133
2013	3,721.9	7,081.3	78,334	130
2014	3,976.9	7,566.4	80,986	135

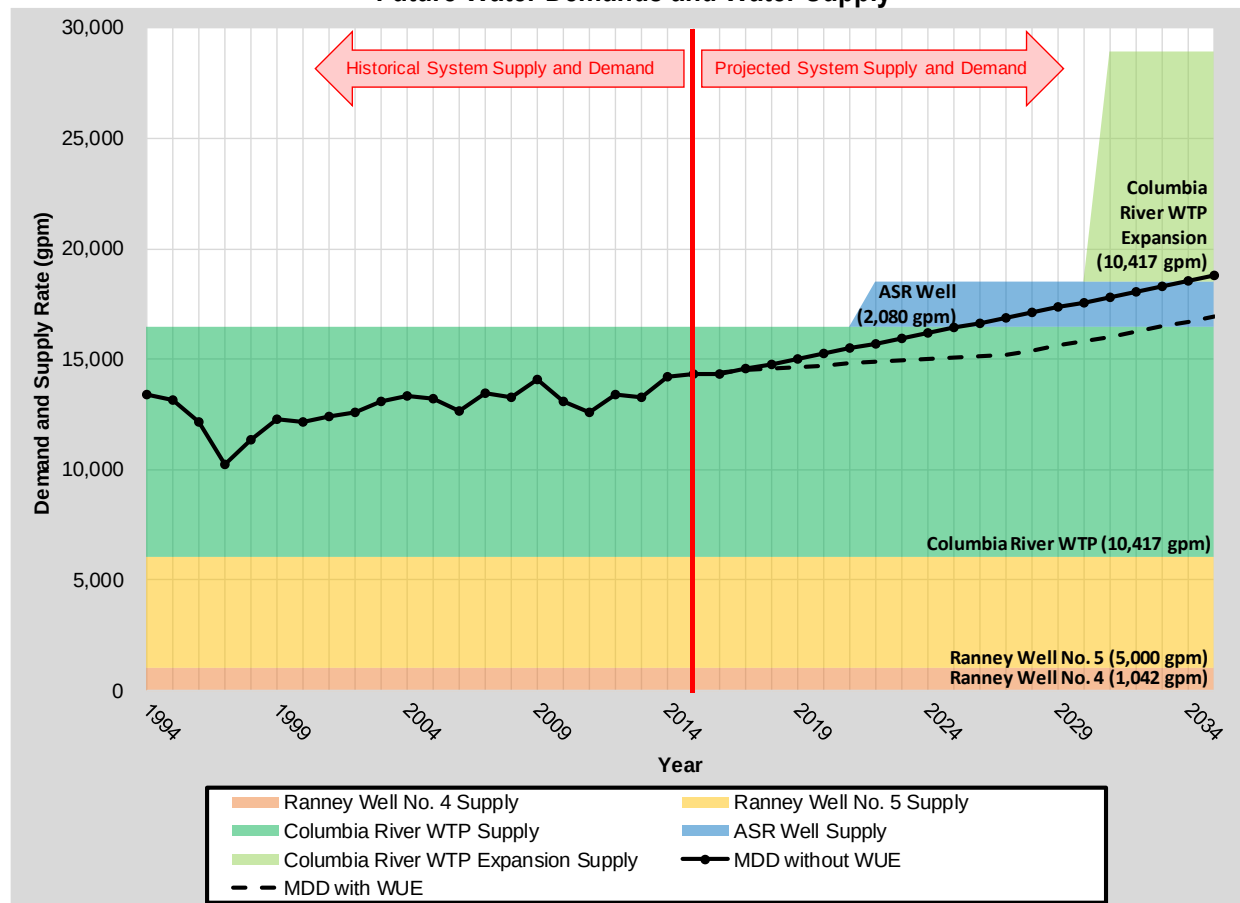
FUTURE WATER DEMANDS AND WATER SUPPLY

Overall water demand within the City's system is estimated to increase by approximately 33 percent by the end of the 20-year planning period. The City's existing active sources are sufficient to meet the projected demands of the system through 2025, but additional source capacity is needed to meet the projected demands beyond 2025.

The City completed construction of an aquifer storage and recovery (ASR) well in 2014. Ongoing testing of the ASR Well and the aquifer storage capacity has been occurring since the well was constructed. If the ASR Well becomes fully developed and is granted source approval by regulatory agencies, a maximum of 2,080 gallons per minute (gpm) may be pumped from the well.

If the maximum ASR Well pumping rate of 2,080 gpm can be achieved, the City is projected to have a slight source capacity deficiency in 2035 based on the projected system maximum day demands (MDD) without reductions from water use efficiency (WUE) efforts, as shown in **Chart ES-1**. The City plans to evaluate an expansion of the Columbia River WTP to meet the projected source capacity requirements.

Chart ES-1
Future Water Demands and Water Supply



WATER SOURCE AND QUALITY

The City's municipal water supply is provided by surface water diverted from the Columbia River, and groundwater pumped from Ranney Wells No. 4 and No. 5. Water from the Columbia River is treated by membrane filtration at the Columbia River WTP. Sodium hypochlorite is injected into the filtered water as the final disinfection process prior to the water entering the clearwell.

Water supplied by the Ranney Wells No. 4 and No. 5 is provided natural filtration by several hundred feet of porous media, and is subjected to ultraviolet light disinfection to treat for *Cryptosporidium* and *Giardia lamblia*. Sodium hypochlorite is injected into the water prior to it entering a chlorine contact pipeline and the distribution system. The Columbia River WTP and Ranney Wells provide a reliable and high-quality water supply for the City.

In addition to these existing supply facilities, ongoing testing of the ASR Well and the aquifer storage capacity has been occurring since 2014. During testing, the City is analyzing the aquifer's ability to develop a cool water storage zone, establishing baseline and dynamic aquifer parameters, assessing aquifer response, and confirming the compatibility of the City's treated water and groundwater from the ASR Well for long-term drinking water supply.

OPERATIONS AND MAINTENANCE

The City's operations and maintenance organization is staffed by well-qualified, technically trained personnel. City staff regularly participates in safety and training programs to keep abreast of the latest changes in the water industry and to ensure smooth and safe operation of the water system. The current staff of supervisory and maintenance personnel have effectively operated and maintained the water system in the past. The City plans to add staff as necessary to properly maintain the system and keep up with future system growth.

The City has taken several steps to prepare for emergency situations. The Emergency Response Plan (ERP) was prepared for the City in 2004 and provides information to prepare and assist the City in responding to emergency events. The ERP includes a vulnerability assessment, contingency procedures, and emergency response procedures in accordance with the requirements of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. Water system improvements completed by the City over the last several years, and proposed improvements identified in this WCP, will reduce the vulnerability of the water system during emergency situations.

WATER SYSTEM EVALUATION

The existing water system was evaluated to determine its ability to meet the policies and design criteria of the City and those mandated by DOH. The results of the evaluation are summarized as follows.

- The City's existing active sources are sufficient to meet the projected demands of the system through 2025, but additional source capacity is needed to meet the projected demands beyond 2025.
- If the maximum ASR Well pumping rate of 2,080 gpm can be achieved, the City is projected to have a slight source capacity deficiency in 2035 based on the projected MDD without reductions from water use efficiency efforts.
- The City's existing booster pump stations have adequate capacity for at least the next 10 years and may be sufficient to meet the projected 2035 demands, depending on the production rate and operational constraints of the ASR Well.
- The City's existing reservoirs have adequate capacity to meet the DOH minimum storage requirements for the next 20 years.
- Several pressure reducing valves are necessary to increase the level of service provided to customers within Zones 1 and 2.
- Several water mains need to be replaced with new water mains to increase fire flows and resolve deficiencies related to undesirable pipe material and aging water main.

PROPOSED WATER SYSTEM IMPROVEMENTS AND FINANCING PLAN

Improvements to the system are primarily necessary to resolve existing system deficiencies, but they will also improve operations, replace older aging infrastructure, and accommodate future water customers. City-funded improvements identified for the first 6 years of the capital improvement program (2016 to 2021) are estimated to cost approximately \$12,844,000 (in 2016 dollars), which results in an average expenditure of approximately \$2,141,000 per year (in 2016 dollars). Scheduled City-funded improvements in the following 4 years (2022 to 2025) are estimated to cost

approximately \$6,327,000 (in 2016 dollars). Scheduled City-funded improvements within the remainder of the City's 20-year capital improvement program (CIP) (2025 to 2035) are estimated to cost approximately \$33,170,000 (in 2016 dollars).

The financial analysis is intended to illustrate the feasibility of funding the operation, maintenance, and capital improvements planned for the water system through the WCP approval period. The City has established rates that are affordable to its customers and has earned a reputation for providing high-quality customer service and outstanding water quality. The City's proven financial strength will ensure that customers will continue to receive the same high-quality level of service they have come to expect.

1 | DESCRIPTION OF WATER SYSTEMS

WATER SYSTEM OWNERSHIP AND MANAGEMENT

The City of Kennewick (City) is a Washington state municipal corporation that owns and operates a Group A community water system within the boundaries of the City. Water system data on file at the Washington State Department of Health (DOH) for the City is shown below in **Table 1-1**.

Table 1-1
Water System Ownership Information

Information Type	Description
System Name	Kennewick, City of
System Type	Group A, Community
DOH System ID Number	38100Q
Primary Operator ID	007563
County	Benton
Address	P.O. Box 6108, Kennewick, WA 99336
Contact	Luke Freeman (509.585.4331)

SYSTEM HISTORY AND BACKGROUND

HISTORY

The City of Kennewick Municipal Water System was established in 1949 when the City acquired the Pacific Power and Light Company water system and the Kennewick Irrigation District (KID) water system. The water system in 1949 was supplied by Columbia River water pumped into the water system without filtration, and the Layton Park Wells. Between 1958 and 1960, the City installed five Ranney collector wells on Clover Island with an original combined capacity of 24.5 million gallons per day (MGD). Three of the Ranney wells have been removed from service. The current maximum pumping and treatment capacity of the remaining Ranney wells is approximately 15 MGD, but current groundwater and turbidity conditions limit the combined capacity of the City's Ranney wells to approximately 8.7 MGD. For the purposes of the analyses presented in this Water Comprehensive Plan (WCP), the capacity of the Ranney wells is considered to be 8.7 MGD.

The City's Columbia River Water Treatment Plant (WTP) was constructed in 1980 with an original capacity of 7.5 MGD. The facility capacity has been expanded to 15 MGD, and has the infrastructure to be expanded to 30 MGD in the future.

The City also operates two wells in Columbia Park; the Kiwanis Well is a 25 gallons per minute (gpm) well used for irrigation in the park, and the Columbia Park Campground Well is a 70 gpm well that is a separate water system used to supply a seasonal campground.

TOPOGRAPHY

The topography of the City's water service area varies greatly. The lowest service elevation is approximately 340 feet along the Columbia River, and the highest service elevation is 940 feet in the

southern portion of the water service area. This varied terrain has provided a need for six different pressure zones to maintain adequate pressures throughout the system.

INVENTORY OF EXISTING FACILITIES

PRESSURE ZONES

The City's water system consists of five pressure zones served by reservoirs and five small pressure zones served from pressure reducing valves (PRVs). A booster pump station (BPS) has been constructed to provide water supply to a future closed pressure zone (i.e., a pressure zone without a storage facility with the only supply to the pressure zone being pumped), but no water service connections have been installed in this pressure zone. The City's largest zone, both in terms of area and volume of customers, is Zone 2. Zone 1 has the lowest hydraulic grade of the City's pressure zones (531 feet), and is located in the north and northeastern portion of the water system along the Columbia River. Higher pressure zones are located southwest of Zone 1, with the highest pressure zone with water services (Zone 5, 1,045-foot hydraulic grade) located just north of the intersection of State Highway 395 and Interstate 82 (I-82). Development within a future Zone 6 pressure zone 6 is currently underway, but no active water service connections currently exist in Zone 6.

The City's pressure zones and existing system facilities are shown on **Figure 1-1**. The pressure in each pressure zone is regulated by reservoir levels, pressure reducing station settings, pump station settings or a combination of these, as illustrated in the hydraulic profile, **Figure 1-2**.

SUPPLY FACILITIES

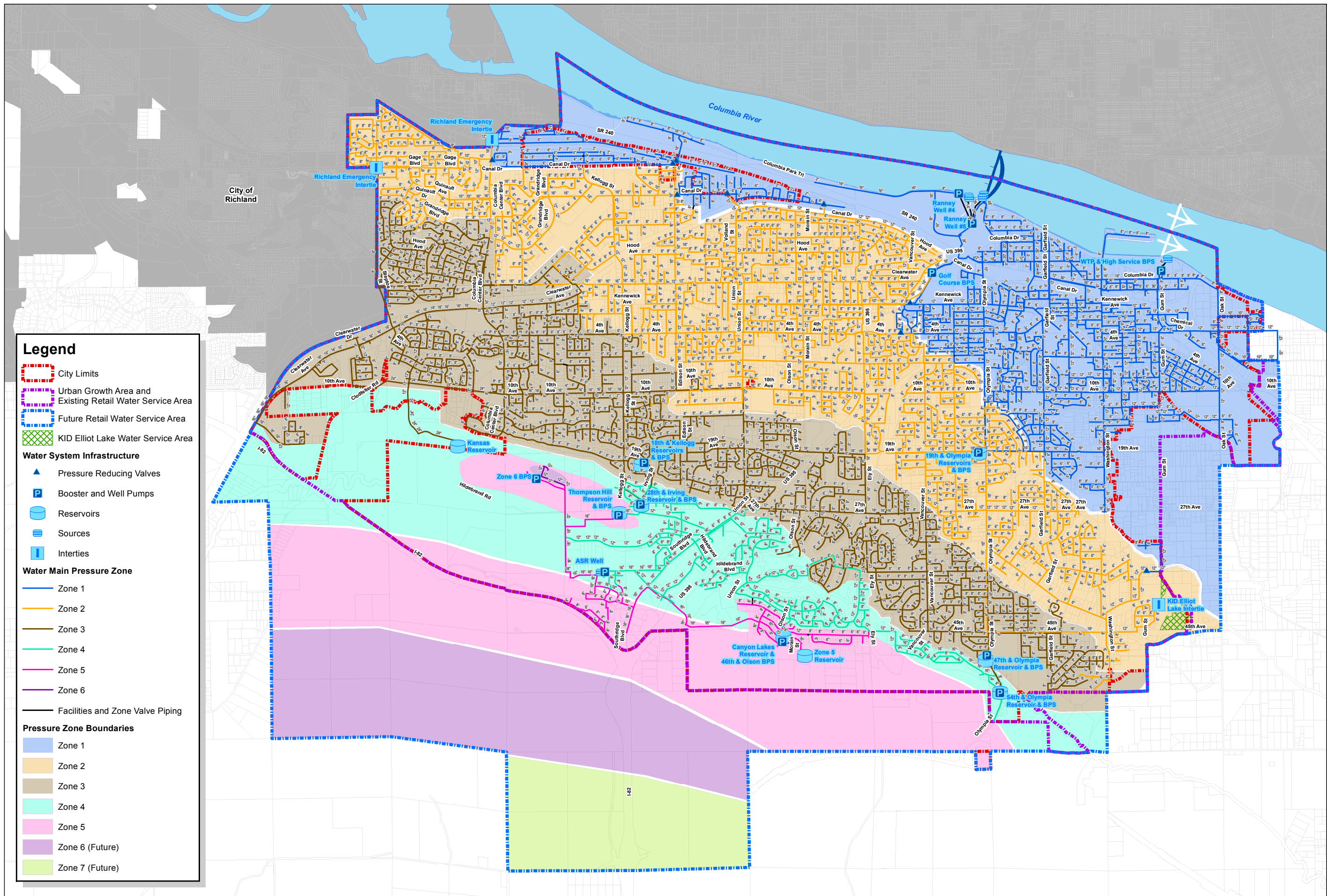
The City's water system is supplied by Ranney Wells No. 4 and No. 5, which have a current capacity of approximately 6,045 gpm (8.7 MGD), and a Columbia River surface WTP, which also has an existing capacity of 10,417 gpm (15 MGD). Water from the Ranney Wells and the WTP is pumped directly into Zone 1. The WTP has been constructed with infrastructure to accommodate an expansion to 30 MGD in the future.

A summary of the supply sources and their capacities is shown in **Table 1-2**.

Table 1-2
Supply Facilities Summary

Name	Discharge Pressure Zone	Total Pumping and Treatment Capacity (gpm)	Physical Pumping Capacity (gpm)
Ranney Collector No. 4	Zone 1	1,042	1,042
Ranney Collector No. 5	Zone 1	6,944	5,000
WTP Intake	Clearwell	10,417	10,417
Total		18,403	16,458

In addition to these supply facilities, the City completed construction of an aquifer storage recovery (ASR) well in 2014. The well is located in the southwest portion of the City's existing retail water service area, within Zone 4 of the distribution system, as shown on **Figure 1-1**. The City plans to pump water from the sources shown in **Table 1-2** to recharge the aquifer each winter and spring,



Legend

- City Limits
- Urban Growth Area and Existing Retail Water Service Area
- Future Retail Water Service Area
- KID Elliot Lake Water Service Area
- Water System Infrastructure**
 - Pressure Reducing Valves
 - Booster and Well Pumps
 - Reservoirs
 - Sources
 - Interties
- Water Main Pressure Zone**
 - Zone 1
 - Zone 2
 - Zone 3
 - Zone 4
 - Zone 5
 - Zone 6
- Facilities and Zone Valve Piping**
- Pressure Zone Boundaries**
 - Zone 1
 - Zone 2
 - Zone 3
 - Zone 4
 - Zone 5
 - Zone 6 (Future)
 - Zone 7 (Future)

Vicinity Map



Figure 1-1
Existing Water System

City of Kennewick
2017 Water Comprehensive Plan

Coordinate System: NAD 1983 StatePlane Washington South FIPS 4602 Feet

By: rwithers

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1 inch = 2,000 feet
0 1,000 2,000 4,000 Feet
Plot Date: 2/21/2017



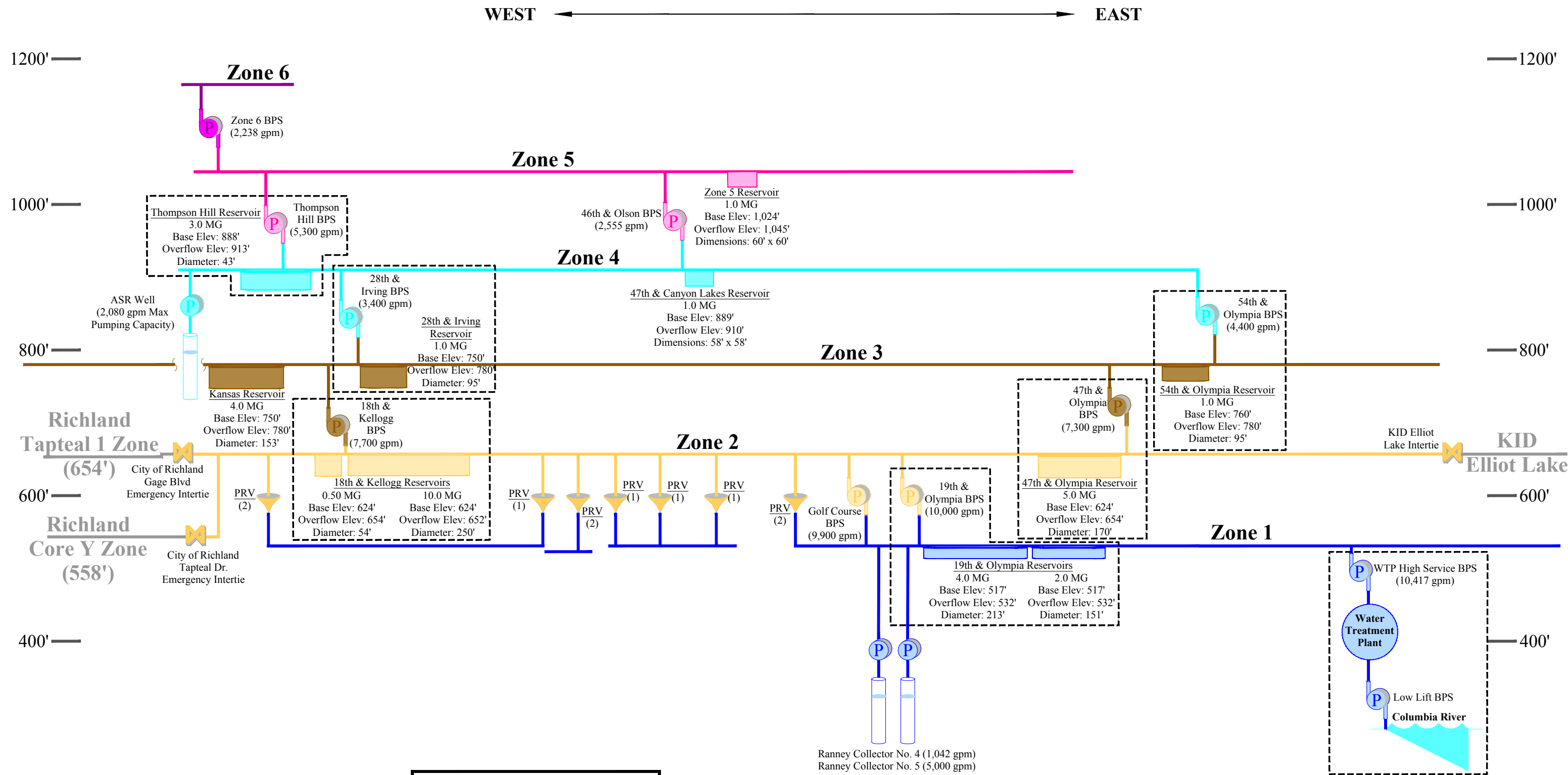


Figure 1-2
Existing System Hydraulic Profile
2017 Water Comprehensive Plan

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Legend	
Pressure Zones	
Zone 1	Well Pump
Zone 2	Booster Pump Station
Zone 3	Pressure Reducing Station
Zone 4	Facilities at Same Site
Zone 5	Intertie
Zone 6	



and then utilize the ASR well in the summer months to provide additional supply to the water system during peak demand conditions. The ASR well provides the City a source in the southern portion of the water system, which is currently only supplied by the sources shown in **Table 1-2** via a series of BPSs.

Ongoing testing of the ASR well and the aquifer storage capacity has been occurring since 2014. During testing, the City is analyzing the aquifer's ability to develop a cool water storage zone, establishing baseline and dynamic aquifer parameters, assessing aquifer response, and confirming the compatibility of the City's treated water and groundwater from the ASR well for long-term drinking water supply. The City anticipates the aquifer will provide approximately 150 million gallons of underground storage, and that the ASR well will be capable of providing a maximum of 2,080 gpm of supply to the water system, equivalent to the design capacity of the existing well pump. Testing has occurred with the pumped well discharge physically disconnected from the City's distribution system. The City is coordinating with regulatory agencies to obtain source approval for the ASR well based on the testing results.

PUMP STATION FACILITIES

The City's water system has 11 BPS facilities that provide supply throughout the water system. A summary of these pumping facilities is shown in **Table 1-3**.

Table 1-3
Booster Pump Station Facilities Summary

Name	Suction Pressure Zone	Discharge Pressure Zone	Year Constructed	Total Pumping Capacity (gpm)	Number of Pumps	Pump Motor Size (horsepower)
Water Treatment Plant BPS	Clearwell	Zone 1		10,417	4	(2) 250, (2) 400
Golf Course BPS	Zone 1	Zone 2		9,900	3	(3) 250
19th and Olympia BPS	Zone 1	Zone 2		10,000	5	(5) 150
47th and Olympia BPS	Zone 2	Zone 3		7,300	3	(1) 75, (2) 150
45th and Olympia BPS	Zone 3	Zone 4.5		400	2	(2) 20
18th and Kellogg BPS	Zone 2	Zone 3		7,700	3	(1) 75, (2) 150
54th and Olympia BPS	Zone 3	Zone 4		4,400	3	(1) 40, (2) 100
28th and Irving BPS	Zone 3	Zone 4		3,400	3	(1) 40, (2) 100
Thompson Hill BPS	Zone 4	Zone 5	2014	5,300	3	(1) 60, (2) 125
46th and Olson BPS ¹	Zone 4	Zone 5		2,555	3	(1) 15, (1) 40, (1) 100
Zone 6 BPS ²	Zone 5	Zone 6	2015	2,238	3	(1) 7.5, (2) 75

(1) Also referred to as the Canyon Lakes BPS.

(2) No water service connections are currently located within Zone 6, and therefore the Zone 6 BPS does not currently operate.

STORAGE FACILITIES

The City's water system has 13 storage facility sites that provide direct water storage to six pressure zones. A summary of the City's storage facilities is shown in **Table 1-4**.

Table 1-4
Storage Facilities Summary

Name	Pressure Zone	Year Constructed	Material	Capacity (MG)	Diameter (feet)	Base Elevation (feet)	Overflow Elevation (feet)	Overall Height (feet)
WTP Clearwell	Clearwell	1980	Concrete	0.31	---	321	338.5	17.50
19th and Olympia E.	Zone 1	1949	Concrete	2.00	151	517	532	15.00
19th and Olympia W.	Zone 1	1949	Concrete	4.00	213	517	532	15.00
47th and Olympia	Zone 2	1972	Concrete	5.00	170	624	654	30.00
18th and Kellogg	Zone 2	Unknown	Concrete	10.00	250	624	652	28.00
18th and Kellogg	Zone 2	1960	Steel	0.50	54	625	654	29.00
54th and Olympia	Zone 3	1978	Concrete	1.00	95	760	780	20.00
28th and Irving	Zone 3	1978	Concrete	1.00	95	750	780	30.00
Kansas	Zone 3	2006	Concrete	4.00	153	750	780	30.00
Canyon Lakes	Zone 4	1980	Concrete	1.00	58.0 x 58.0 ¹	889	910	21.00
Thompson Hill	Zone 4	2015	Concrete	3.00	143	888	913	25.00
Zone 5 Reservoir	Zone 5	2010	Concrete	1.00	60.0 x 60.0 ¹	1,024	1,045	21.00

(1) Rectangular dimensions

DISTRIBUTION AND TRANSMISSION SYSTEM

The City's water system contains more than 409 miles of water main ranging in size from 2 inches in the distribution system to 48 inches at the City's supply facilities. As shown in **Table 1-5**, most of the water main (approximately 48 percent) within the service area is 8 inches in diameter.

Table 1-5
Water Main Diameter Inventory

Diameter (inches)	Length (feet)	Percentage of Total
4 or smaller	98,753	4.6%
6	458,864	21.2%
8	1,046,234	48.4%
10	36,169	1.7%
12	224,160	10.4%
14	2,578	0.1%
16	177,946	8.2%
18	16,432	0.8%
20	4,985	0.2%
24	15,801	0.7%
30	6,495	0.3%
32	10	0.0%
36	10,210	0.5%
42	980	0.0%
48	1,618	0.1%
Unknown	59,257	2.7%
Totals	2,160,492	100%

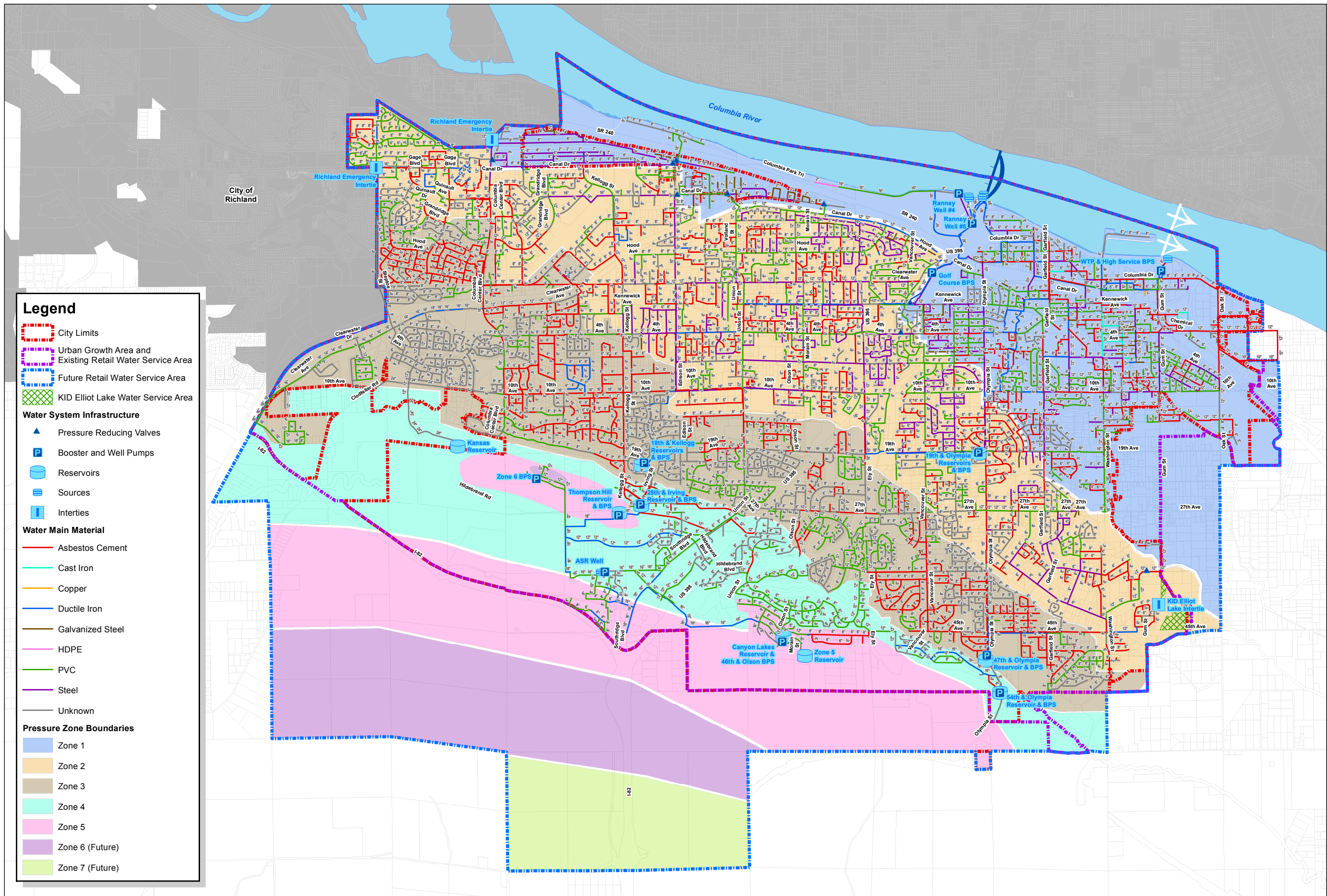
All of the water main in the City's system is constructed of either asbestos cement, cast iron, copper, ductile iron, galvanized steel, high density polyethylene (HDPE), polyvinyl chloride (PVC), and steel, with approximately 30 percent of the system constructed of asbestos cement and 24 percent constructed of PVC. All new water main installations are required to use ductile iron or PVC pipe in accordance with the City's development and construction standards. **Table 1-6** and **Figure 1-3** show the City's existing water main inventory by material.

Table 1-6
Water Main Material Inventory

Water Main Material	Length (feet)	Percentage of Total
Asbestos Cement	646,868	29.9%
Cast Iron	7,183	0.3%
Copper	375	0.0%
Ductile Iron	124,399	5.8%
Galvanized Steel	33,110	1.5%
HDPE	1,045	0.0%
PVC	526,598	24.4%
Steel	256,601	11.9%
Unknown	564,313	26.1%
Totals	2,160,492	100%

EXISTING RETAIL WATER SERVICE AREA

The City is located in Benton County, Washington, on the right bank of the Columbia River. The City limits encompasses an area of approximately 28.61 square miles, and the City's urban growth area (UGA) encompasses an additional 3.27 square miles outside of the current City limits, for a total area of approximately 31.88 square miles. The existing retail water service area is identical to the UGA, which is shown in **Figure 1-1**, and includes a portion of KID's Elliot Lake water system in the eastern portion of the City limits. The City's water system is located immediately east of the City of Richland's (Richland) water system. Columbia Irrigation District and KID also provide irrigation service throughout much of the City's water system, as shown in **Figure 1-4**. A summary of the current water system data for the City's water system is shown in **Table 1-7**.



Vicinity Map



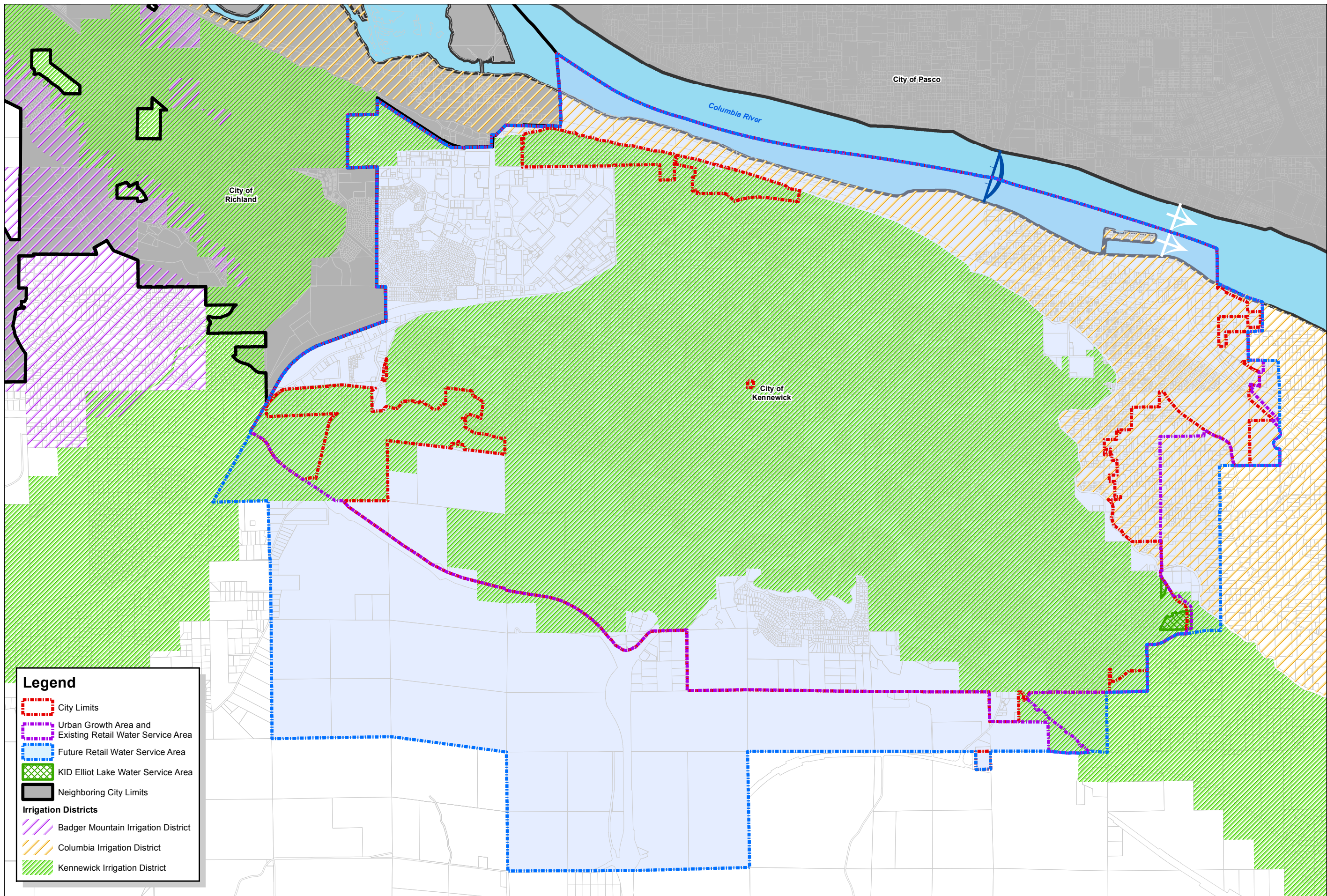
Figure 1-3
Water Main Material
City of Kennewick
2017 Water Comprehensive Plan



1 inch = 2,000 feet
0 1,000 2,000 4,000 Feet
Plot Date: 2/21/2017



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Legend

- City Limits
- Urban Growth Area and Existing Retail Water Service Area
- Future Retail Water Service Area
- KID Elliot Lake Water Service Area
- Neighboring City Limits

Irrigation Districts

- Badger Mountain Irrigation District
- Columbia Irrigation District
- Kennewick Irrigation District

Vicinity Map

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong

Figure 1-4
Adjacent Purveyors and Irrigation Districts
City of Kennewick
2017 Water Comprehensive Plan

1 inch = 2,000 feet

0 1,000 2,000 4,000 Feet

Plot Date: 2/21/2017

NORTH

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**Table 1-7
Kennewick Water System Data**

Information Type	Description
Water Service Area Population	80,986
Existing Retail Water Service Area	31.88 square miles
Total Connections	23,801
Total ERU	44,034
Demand per ERU	244 gallons per day per ERU
Demand per Capita	134 gallons per day per capita
Average Annual Supply	4,011 million gallons
MDD/ADD Factor	1.88
PHD/MDD Factor	1.54
Supply Capacity	23.7 million gallons per day
Storage Capacity	32.81 million gallons
Length of Water Piping	409.2 miles

The City's water system has 23,801 connections and serves a population of 80,986. The existing retail water service area comprises approximately 31.88 square miles. Water supply is provided by two Ranney wells and the Columbia River. It is stored in 13 reservoirs with a total capacity of 32,810,000 gallons. Water supply from all sources is chlorinated.

FUTURE RETAIL WATER SERVICE AREA

The City's future retail water service area includes additional area outside of the existing service area, and mostly includes expansion south of Interstate 82, which is the southerly boundary of the City's existing service area. The City's future retail water service area encompasses an area of approximately 40.92 square miles, and is shown in **Figure 1-1**.

Compatibility with Related Plans

To ensure that this WCP is consistent with other related plans, the following planning documents were examined.

- State of Washington Growth Management Act
- *Benton County Comprehensive Land Use Plan*
- *City of Kennewick Comprehensive Plan*
- *Regional Water Supply Feasibility Study*
- *Regional Water Forecast and Conservation Plan*

Growth Management Act

The State of Washington Growth Management Act (GMA), has been most recently updated in 2014. The GMA requires, among other things, consistency between land use and utility plans and

their implementation. The State of Washington GMA of 1990 (and its multiple amendments) defined four goals relevant to this report:

1. Growth should be in urban areas;
2. There should be consistency between land use and utility plans and their implementation;
3. There should be concurrency of growth with public facilities and services; and
4. Critical areas should be designated and protected.

The GMA requires planning consistency from two perspectives. First, it requires consistency of plans among jurisdictions. This means that plans and policies of the City and County must be consistent (RCW 36.70A.100). Second, the GMA requires the implementation of the WCP be consistent with the comprehensive plans (RCW 36.70A.120).

The 2003 Municipal Water Law also requires that water system plans are consistent with local plans and regulations. The signed Consistency Statement Checklist (included in **Appendix Y**) from the City Planning Department documents the determination for this WCP to be consistent with relevant plans and regulations. An ordinance confirming and adopting the WCP from Benton County is also included in **Appendix Y** for the portions of the County that is served by the City.

The GMA also requires that critical areas be designated and protected. Critical areas include aquifer recharge areas, wetlands, streams, and geologically hazardous areas. The State Environmental Policy Act (SEPA) checklist in **Appendix Y** addresses other environmental concerns.

City of Kennewick Comprehensive Plan

The Land Use Element of the city's comprehensive plan is the city's vision of how growth and development should occur over a 20-year horizon. While the Land Use Element goals and policies set forth general standards for locating land uses, the future land use maps indicate geographically where certain types of uses may be appropriate. The future land use map is a blueprint for development of an area, whereas the zoning map and zoning code are the regulatory means for implementing it.

The Land Use Element of the city's comprehensive plan considers the general location of land uses, as well as the appropriate intensity and density of land uses given the current development trends. The utilities, transportation, and capital facilities elements ensure that new development will be adequately serviced without compromising adopted levels of service, similar to the principal of concurrency as defined in the GMA. The City's WCP is reviewed and taken into consideration during the development and subsequent revisions to the comprehensive plan.

Benton County Comprehensive Land Use Plan

The County originally adopted the *Benton County Comprehensive Land Use Plan* on March 12, 2007. Since this time, the plan has been amended several times to incorporate UGA changes, capital facility plan changes, and land use changes. The most recent amendments took effect in March 2013 to include data through 2012. The County's Comprehensive Land Use Plan guides development in rural, unincorporated Benton County and designates land uses in unincorporated UGAs.

Regional Water Supply Feasibility Study

The *Regional Water Supply Feasibility Study* (RWSFS), originally prepared in 2003 and updated in the spring of 2016, provides a detailed analysis of how the Cities of Kennewick, Richland, and West

Richland will obtain, treat, and distribute water south and west of the Columbia River. The RWSFS develops 50-year demand projections for each city, analyzes the hydraulics between the three cities, evaluates the feasibility of a regional treatment facility, and develops a detailed implementation plan for three future supply alternatives.

Regional Water Forecast and Conservation Plan

The *Regional Water Forecast and Conservation Plan* (RWFCP), originally prepared in September 2008 and updated in the spring of 2016, forecasts the long-term needs of the Cities of Kennewick, Pasco, Richland, and West Richland “to serve as a common demand forecast by the four cities when they update their water system plan.” The RWFCP recommends a strategy to use the entire Quad City water right of 178 cubic feet per second (cfs) under Application No. S4-30976 between the four cities. The intent of the RWFCP is to supplement the RWSFS and each city’s individual water system plan.

The RWFCP is required to be updated on a 6-year basis, as described in the Quad City water right permit (S4-30976). Although the anticipated approval period of this WCP is ten years, the Cities of Kennewick, Pasco, Richland, and West Richland plan to continue updating the RWFCP every six years. In the event that the different approval periods of the RWFCP and WCP result in inconsistencies between the two documents, the City will prepare an amendment to the applicable document to ensure the consistency of these two documents in the future.

SERVICE AREA AGREEMENTS AND POLICIES

KENNEWICK AND RICHLAND WATER SERVICE AREA AGREEMENTS

The City has a water service area agreement with Richland that establishes each city’s service area for providing water and sewer service along the shared boundary line between the two cities. The agreement, dated August 31, 1977, rescinds a 1967 agreement between the two cities that was established prior to each cities’ corporate boundaries sharing a common boundary. The agreements expired on January 1, 1990, and were not renewed as a result of each cities’ corporate boundaries having been expanded to this shared boundary line prior to this date. A copy of the original 1967 agreement and the subsequent 1977 agreement are contained in **Appendix A**.

The City and Richland also have two water service agreements identifying the water and sewer service boundaries and conditions of service near the I-82 Badger Canyon interchange, located at the southwesterly extent of the City’s existing service area. The agreements provided for a supply intertie between the City and Richland for the City to provide up to 200 gpm of domestic water supply to a small portion of Richland’s water system that was originally unable to be supplied by Richland’s water system. The agreements, dated January 27, 1994, and March 2, 1999, are contained in **Appendix A**. Since these agreements were established, Richland has extended domestic water supply to this area, and presently serves this portion of its city limits. The City does not currently provide water service to Richland near the I-82 Badger Canyon interchange, and no intertie currently exists.

KENNEWICK AND KENNEWICK IRRIGATION DISTRICT WATER SERVICE AREA AGREEMENTS

The City also has a regular supply intertie agreement with KID, located approximately 1,000 feet south of the intersection of Gum Street and Kingwood Street in the City's Zone 2 pressure zone. The purpose of this intertie is to provide up to 150 gpm of supply to KID's Elliot Lake potable water system, which is currently owned and operated by KID. The intertie consists of 6-inch-diameter piping and valving that provides regular water supply to KID's Elliot Lake water system, which is comprised of approximately 48 single-family residences. The City is currently evaluating an acquisition of the Elliot Lake water system. A copy of the City's agreement with KID relating to the Elliot Lake water system is contained in **Appendix B**.

EMERGENCY SUPPLY INTERTIES

The City has two emergency intertie agreements with Richland; one located at the intersection of Gage Boulevard and Steptoe Street; and one located near the intersection of Columbia Center Boulevard and Tapteal Drive, as shown in **Figure 1-1**. The Gage Boulevard and Steptoe Street intertie connects Richland's Tapteal 1 pressure zone (654-foot hydraulic grade) with the City's Zone 2 (657-foot hydraulic grade). The emergency intertie consists of a 16-inch-diameter isolation valve that is normally closed and must be manually opened to flow water to either city during an emergency situation. An emergency situation may occur when one water system loses its main source of supply, or a major transmission main, or during firefighting situations, and is unable to provide a sufficient quantity of water to its customers. The agreed operation of the emergency intertie is contained in an agreement, dated March 5, 1975, a copy of which is included in **Appendix C**.

The Columbia Center Boulevard and Tapteal Drive intertie connects the City's Zone 2 (657-foot hydraulic grade) with Richland's Core Y Pressure Zone (558-foot hydraulic grade). The intertie consists of an isolation valve that is normally closed and must be manually opened to flow water during an emergency situation. Because the hydraulic grade of the City's adjacent pressure zone is 99 feet greater than Richland's at this location, piping was installed at the intertie to facilitate installation of a temporary pump in the event that the City requires emergency supply from Richland. The operation of the emergency intertie is contained in an agreement, dated November 16, 2004, a copy of which is included in **Appendix C**.

CONDITION OF SERVICE

The City has the stability and authority to ensure water service and will continue to provide high-quality water and service. Decisions regarding the water system are made by the City's Public Works Director. The City has sufficient water rights such that water availability is a technical issue, based upon the location of the property and available capacity in the specific pressure zone. The City's water system model can evaluate the supply capacity, while storage needs are tabulated and managed on an equivalent residential units (ERU) basis. A detailed description of the City's customer service policies and the determination of available capacity for future connections is presented in **Chapter 7**.

SATELLITE SYSTEM MANAGEMENT AGENCY

A Satellite System Management Agency (SSMA) is defined as a person or entity that is certified by the DOH to own or operate more than one public water system without the necessity for a physical connection between such systems. SSMA's were created to stop the proliferation of small water systems, many of which could not meet federal and state water quality and water system planning regulations. Based on the success of SSMA's, DOH made recommendations to the legislature to include rules for designating entities as qualified SSMA's.

In July 1995, Senate Bill 5448 became law, governing approval of new water systems and setting forth requirements for SSMA's. The goal of the law is to ensure that the people of Washington state will receive safe and reliable water supplies in the future from professionally-managed or properly-operated water systems. SSMA's can provide three different levels of service:

1. Ownership of the satellite system;
2. Operations and management of the satellite system; or
3. Contract services only.

The service can be provided to new systems, existing systems that are no longer viable, or existing systems placed into receivership status by DOH.

The City is responsible for providing water service to all customers in the City's water service area defined in this WCP. Other than KID's Elliot Lake water system, all areas surrounding the City's service area are currently being served by large, stable water systems that are unlikely to be future satellite water systems operated by the City.

In the event that a neighboring water system needs the City's assistance, the City will evaluate providing the necessary satellite management services. Upon agreement between the two systems, the City will pursue the necessary steps to become an approved SSMA. These include:

- Submitting a notice of intent to the DOH;
- Participating in a pre-submittal meeting with the DOH;
- Submitting a SSMA plan to the DOH that meets the plan requirements; and
- Obtaining approval of the plan from the DOH.

DUTY TO SERVE

The City has a duty to service its community with safe, clean water. The four threshold factors for duty to serve are as follows:

1. Capacity: The capacity of the systems to serve the anticipated future needs is addressed as part of the system analysis in **Chapter 3**.
2. Consistency: The *Benton County Land Use Plan* and development regulations for the retail service area allow for the development of residential, industrial, and commercial lands within the City's UGA. The annexation process between the City and Benton County (County) ensures that the retail service area does not exceed the UGA.
3. Water Rights: Water rights self-assessments are included in **Chapter 4** to demonstrate the available supplies are provided within the retail service area.

4. **Timely and Reasonable:** New buildings and facilities that are within the retail service area will be served. Service policies define how new service will be provided when the City infrastructure requires improvement.

LOCAL GOVERNMENT CONSISTENCY

The City's planning area is part of both the City's corporate boundary and the County. The Local Government Consistency Review Checklists from the City and County are included in **Appendix Y**.

WATER RESOURCE INVENTORY AREA (WRIA) PLANNING

The City's planning area is predominantly part of WRIA 31, Rock-Glad Basin, with a small portion of the western portion of the City's water service area a part of WRIA 40, Lower Yakima Basin. The County, Klickitat County, and the City signed an intergovernmental agreement in May 2003 to begin watershed planning for WRIA 31. A 2008 Watershed Management Plan was completed as part of this planning process, and is included as **Appendix I**.

Summary of Plan Contents

A brief summary of the content of the chapters in this WCP is as follows:

- **Executive Summary:** Provides a brief summary of the key elements of this WCP.
- **Chapter 1 – Description of Water Systems:** Introduces the reader to the City's water system, the objectives of the WCP and the WCP organization. Presents the water service areas, and describes the existing water system.
- **Chapter 2 – Planning and Water Demands:** Identifies current water use, projections, and production and consumption totals.
- **Chapter 3 – System Analysis:** Identifies system design standards, inventory, capacity and water quality analysis, and system deficiencies.
- **Chapter 4 – Water Use Efficiency Program:** Identifies the City's Water Use Efficiency Program and the City's water right self-assessment forms.
- **Chapter 5 – Source Water Protection:** Presents the City's wellhead protection program.
- **Chapter 6 – Operations and Maintenance:** Discusses the City's operations and maintenance program.
- **Chapter 7 – Policies and Design Criteria Program:** Presents the City's design standards.
- **Chapter 8 – Improvement Program:** Presents the proposed water system improvements, their estimated costs, and implementation schedules.
- **Chapter 9 – Financial Program:** Summarizes the financial status of the City and presents a program for funding the water system improvements.
- **Chapter 10 – Miscellaneous Documents:** Presents the City's emergency and supply interties with adjoining utilities.

- **Appendices:** Contains additional information and plans that supplement the main chapters of this WCP.

Definition of Terms

The following terms are used throughout this WCP:

Consumption: The true volume of water used by the water system's customers. The volume is measured at each customer's connection to the distribution system.

Cross-connection: A physical arrangement that connects a public water system, directly or indirectly, with anything other than another potable water system and presents the potential for contaminating the public water system.

Demand: The quantity of water required from a water supply source over a period of time necessary to meet the needs of domestic, commercial, industrial, and public uses, as well as to provide enough water to supply fire fighting, system losses, and miscellaneous water uses. Demands are normally discussed in terms of flow rate, such as MGD or gpm, and are described in terms of a volume of water delivered during a certain time period. Flow rates pertinent to the analysis and design of water systems are as follows:

- **Average Day Demand (ADD):** The total amount of water delivered to the system in a year divided by the number of days in the year.
- **Maximum Day Demand (MDD):** The maximum amount of water delivered to the system during a 24-hour time period of a given year.
- **Peak Hour Demand (PHD):** The maximum amount of water delivered to the system, excluding fire flow, during a 1-hour time period of a given year. A system's PHD usually occurs during the same day as the MDD.

Distribution System Leakage (DSL): Water that is measured as going into the distribution system but not metered as going out of the system.

Equivalent Residential Units (ERUs): One ERU represents the amount of water used by one single-family residence for a specific water system. The demand of other customer classes can be expressed in terms of ERUs by dividing the demand of each of the other customer classes by the demand represented by one ERU.

Fire Flow: The rate of flow of water required during fire fighting, which is usually expressed in terms of gpm.

Head: A measure of pressure or force exerted by water. Head is measured in feet and can be converted to pounds per square inch (psi) by dividing feet by 2.31.

Head Loss: Pressure reduction resulting from pipeline wall friction, bends, physical restrictions or obstructions.

Hydraulic Elevation: The height of a free water surface above a defined datum; the height above the ground to which water in a pressure pipeline would rise in a vertical open-end pipe.

Maximum Contaminant Level (MCL): The maximum permissible level of contaminant in the water that the purveyor delivers to any public water system user, measured at the locations identified under Washington Administrative Code (WAC) 246-290-300, Table 3.

Potable Water: Water suitable for human consumption.

Pressure Zone: A portion of the water system that operates from sources at a common hydraulic elevation.

Purveyor: An agency, special purpose district, subdivision of the state, municipal corporation, firm, company, mutual or cooperative association, institution, partnership, or persons or other entity owning or operating a public water system. Purveyor also means the authorized agents of such entities.

Supply: Water that is delivered to a water system by one or more supply facilities that may consist of supply stations, BPSs, and wells.

Storage: Water that is stored in a reservoir to supplement the supply facilities of a system and provides water supply for emergency conditions. Storage is broken down into the following five components, which are defined and discussed in more detail in **Chapter 3**: 1) operational storage; 2) equalizing storage; 3) standby storage; 4) fire flow storage; and 5) dead storage.

List of Abbreviations

The abbreviations listed below in **Table 1-8** are used throughout this WCP.

Table 1-8
Abbreviations

Abbreviation	Description
ADD	Average Day Demand
AWWA	American Water Works Association
CIP	Capital Improvement Program
City	City of Kennewick
DOH	Department of Health
EPA	Environmental Protection Agency
ERU	Equivalent Residential Unit
fps	feet per second
gpm	gallons per minute
MDD	Maximum Day Demand
MG	Million Gallons
MGD	Million Gallons per Day
mg/l	milligrams per liter
PDD	Peak Day Demand
PHD	Peak Hour Demand
psi	pounds per square inch
SDWA	Safe Drinking Water Act
WAC	Washington Administrative Code

2 | BASIC PLANNING DATA

EXISTING DATA

EXISTING LAND USE

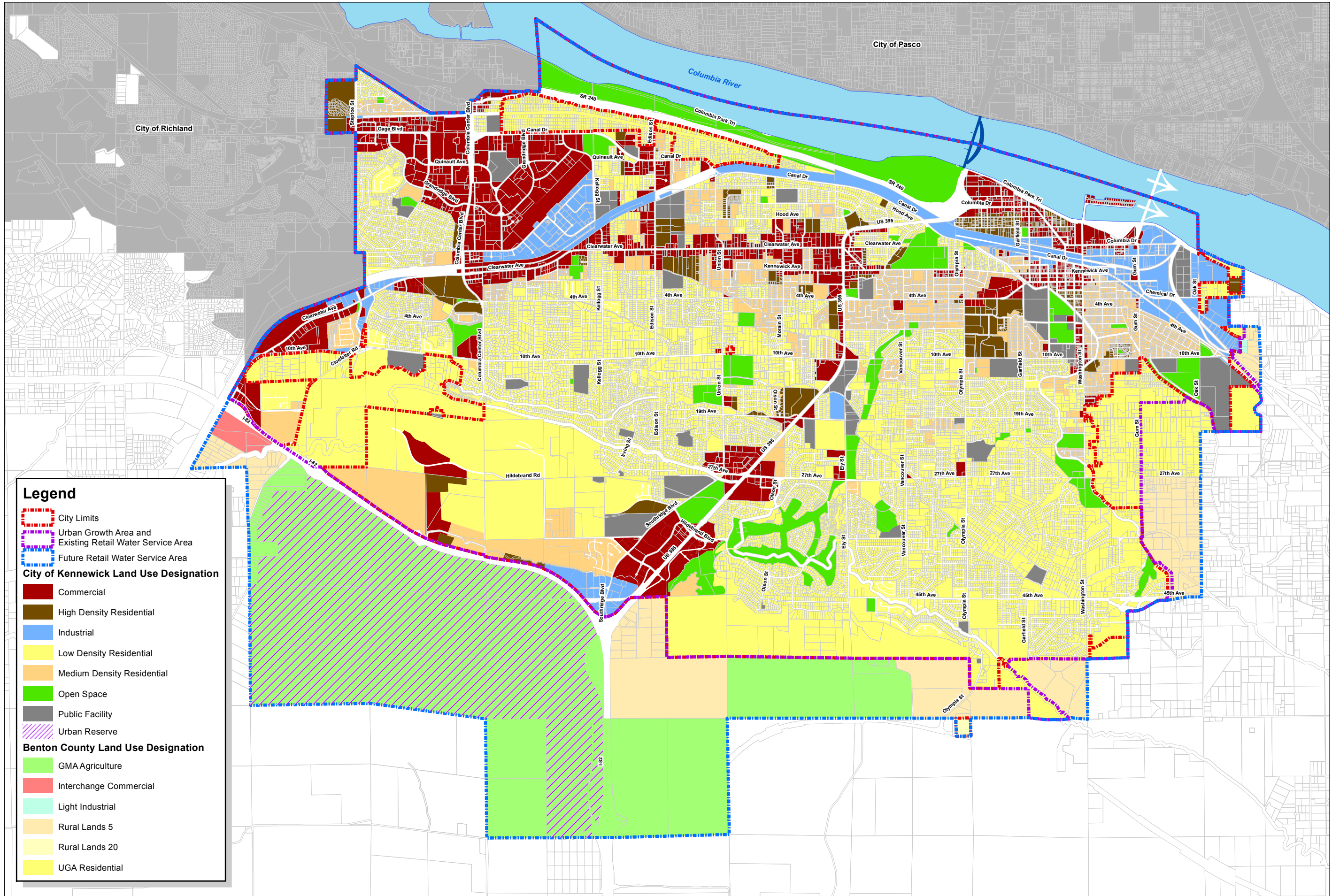
The City limits currently encompass an area of approximately 28.61 square miles, and is shown in **Figure 2-1**. The City's urban growth area (UGA) encompasses an additional 3.27 square miles outside of the current City limits, for a total area of approximately 31.88 square miles. The existing retail water service area is identical to the UGA; however, the future retail water service area is larger, encompassing an additional 9.04 square miles outside of the current UGA, for a total area of approximately 40.92 square miles.

The City's land use designations, as shown in **Figure 2-1**, guide City development. **Figure 2-1** represents the City's future land uses, with the exception of future changes in land use as a result of City-initiated neighborhood plan updates and private citizen requests. Benton County (County) land use designations for areas within the City's future water service area and outside of the City limits are also shown in **Figure 2-1**. The City has established pre-annexation zoning for areas outside of the existing City limits but within the existing UGA. A figure showing the zoning for these areas is presented in **Appendix T**.

Most of the area within the City limits, UGA, and future retail water service area is designated for low density residential use. Of the 3.44 square miles of commercial area within the future retail water service area, approximately 0.88 square miles (26 percent) are undeveloped or are not fully developed. A summary of the existing land uses within the City's future retail water service area is presented in **Table 2-1**.

Table 2-1
Summary of Land Use Designations

Land Use	Area (square miles)		
	Within City Limits	Within UGA	Within Future Water Service Area
City Land Use			
Commercial	3.44	3.44	3.44
High Density Residential	0.91	0.91	0.91
Industrial	1.24	1.24	1.24
Low Density Residential	11.18	11.18	11.18
Medium Density Residential	2.52	2.52	2.52
Open Space	1.78	1.78	1.78
Public Facility	1.08	1.08	1.08
Right-of-way and Water Bodies	6.47	6.47	6.47
City Land Use Total	28.61	28.61	28.61
County Land Use			
GMA Agriculture	---	---	7.15
Interchange Commercial	---	---	0.09
Light Industrial	---	0.01	0.01
Rural Lands 5	---	0.23	1.94
Rural Lands 20	---	0.02	0.02
UGA Residential	---	3.01	3.09
County Land Use Total	0.00	3.27	12.31
Grand Total	28.61	31.88	40.92



Legend

City Limits

Urban Growth Area and Existing Retail Water Service Area

Future Retail Water Service Area

City of Kennewick Land Use Designation

Commercial

High Density Residential

Industrial

Low Density Residential

Medium Density Residential

Open Space

Public Facility

Urban Reserve

Benton County Land Use Designation

GMA Agriculture

Interchange Commercial

Light Industrial

Rural Lands 5

Rural Lands 20

UGA Residential

Vicinity Map

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong

Figure 2-1

Land Use

City of Kennewick

2017 Water Comprehensive Plan

Coordinate System: NAD 1983 StatePlane Washington South FIPS 4602 Feet

By: rwithers

1 inch = 2,000 feet

0 1,000 2,000 4,000 Feet

Plot Date: 2/21/2017

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EXISTING POPULATION

The City primarily consists of residential communities comprised largely of single-family residences. In 2014, the Washington State Office of Financial Management (OFM) estimated that 63 percent of all housing units in the City were single-family residential. According to OFM, the average household size in the City for all single-family residential, multi-family residential, and mobile home residences was 2.60 persons per household in 2014, compared to 2.55 persons per household Countywide.

The County has continued to experience rapid population growth and additional physical developments in recent years. The population of Benton County increased by more than 6 percent from 2010 to 2014. The population of the City increased approximately 5 percent during the same period. The population of the City has steadily increased since 1990. The City's historical population data within the established City limits since 1990 is shown in **Table 2-2**, and has been assembled from OFM records.

Table 2-2
Historical Population Trends

Year	City Limits Population¹	Water Service Area Population²
1990	42,152	---
1995	47,538	56,419
2000	54,751	60,780
2005	62,715	65,744
2008	69,865	68,128
2010	73,917	72,940
2011	74,665	76,356
2012	75,160	77,078
2013	76,410	78,334
2014	77,700	80,986

(1) Census data for 1990, 2000, and 2010. OFM intercensal estimates for all other years.

(2) 1995 through 2005 data presented in City's 2009 WCP. 2001 through 2014 data calculated based on 2.60 persons per household and City-provided single and multi-family residential unit counts.

The actual number of people served by the City's water system differs from the City limits population, as the water service area includes customers outside of the current City limits. The City's 2010 *Water Comprehensive Plan* (WCP) estimated a water service population of 2,268 outside of the City limits, resulting in a water service area population of 68,128 in 2008 (**Table 2-2**). The average household size of 2.60 persons per household, combined with the average number of housing units receiving water service, was used to calculate the historical water service area population from 2011 through 2014, as shown in **Table 2-3**. The 2010 water service area population was estimated based on the 2008 population presented in the City's 2010 WCP and the calculated 2011 population shown in **Table 2-3**.

Table 2-3
Historical Residential Units Served and Water Service Area Population

Year	Single-family Residential Units	Multi-family Residential Units	Total Units Served	Persons per Household	Water Service Area Population
2011	18,524	10,883	29,407	2.60	76,356
2012	18,688	10,997	29,685	2.60	77,078
2013	18,930	11,238	30,168	2.60	78,334
2014	19,975	11,214	31,189	2.60	80,986

WATER USE CLASSIFICATIONS

The City has divided all water customers into four different classes for billing purposes: single-family residential; multi-family residential; commercial; and municipal. The demand analysis will report on the water use patterns of the four user groups.

EXISTING WATER DEMANDS

WATER CONSUMPTION

Water consumption is the amount of water used by all customers of the system, as measured by the customers' meters. **Table 2-4** shows the historical average number of connections and average annual consumption within the City from 2008 through 2014. As shown in **Chart 2-1**, the single-family residential class represents approximately 84 percent of all connections in 2014, but only 45 percent of total system consumption, as shown in **Chart 2-2**. This is due to lower consumption per connection of single-family residential customers as compared to other customers.

Table 2-4
Average Annual Metered Consumption and Service Connections

Year	Customer Class				Totals
	Single-family Residential	Multi-family Residential ¹	Commercial	Municipal	
Average Number of Connections					
2008	17,592	1,177	1,943	148	20,860
2009	17,873	1,170	1,968	152	21,163
2010	18,206	1,171	2,006	152	21,535
2011	18,524	1,175	2,033	160	21,892
2012	18,688	1,183	2,061	166	22,098
2013	18,930	1,182	2,085	167	22,364
2014	19,975	1,255	2,390	181	23,801
Annual Consumption (gallons)					
2008	1,602,517,593	500,325,762	1,017,123,585	391,903,395	3,511,870,335
2009	1,733,186,967	617,664,885	966,503,042	356,655,279	3,674,010,173
2010	1,587,519,191	604,342,115	918,874,698	371,346,981	3,482,082,984
2011	1,598,243,983	602,450,296	909,764,945	381,922,164	3,492,381,388
2012	1,618,486,216	615,320,496	1,020,532,449	389,739,286	3,644,078,448
2013	1,685,980,524	615,186,595	954,634,480	446,616,520	3,702,418,119
2014	1,731,064,001	616,093,681	1,027,079,382	441,848,449	3,816,085,514
Average Daily Consumption per Connection (gal/day/conn)					
2008	250	1,165	1,434	7,255	461
2009	266	1,446	1,346	6,429	476
2010	239	1,414	1,255	6,693	443
2011	236	1,405	1,226	6,540	437
2012	237	1,425	1,357	6,432	452
2013	244	1,426	1,254	7,327	454
2014	237	1,345	1,177	6,688	439
2008 - 2014 Average	244	1,375	1,293	6,766	452

(1) Each multi-family residential connection serves multiple housing units.

Chart 2-1
2014 Water Connections by Customer Class

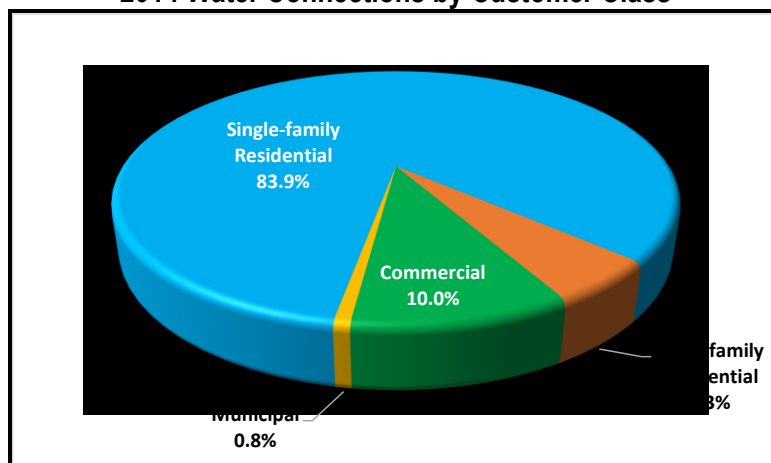
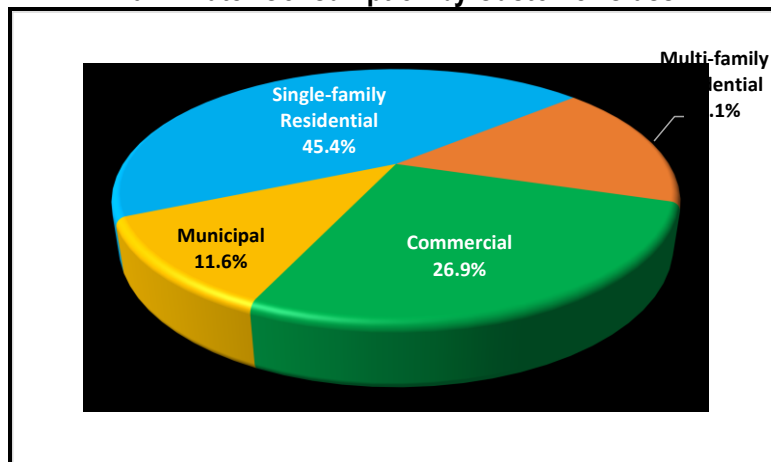


Chart 2-2
2014 Water Consumption by Customer Class



As shown in **Table 2-4**, single-family residential customers consume an average of approximately 244 gallons per day per connection; multi-family customers consume an average of approximately 1,375 gallons per day per connection; commercial customers consume an average of approximately 1,293 gallons per day per connection; and municipal customers consume an average of approximately 6,766 gallons per day per connection. The higher consumption from non-single-family residential customers is expected, since these customers include multi-family residential customers where one connection typically serves several units, commercial customers that include the system's highest individual water users, and municipal connections that include City-owned parks and other areas requiring large water volumes.

Table 2-5 shows the largest water users of the system in 2014 and their total amount of metered consumption for the year. The total water consumption of these 20 individual water meters represented approximately 10 percent of the system's total consumption in 2014. The list of accounts in **Table 2-5** primarily consists of City-owned parks, apartment complexes, and commercial businesses.

**Table 2-5
2014 Largest Water Users**

Name	Address	Total Annual Consumption (gallons)
City of Kennewick - Wastewater Treatment Plant	213 N Nutmeg Street	90,536,492
J Lieb Foods	10 E Bruneau Avenue	58,113,012
City of Kennewick - Lawrence Scott Park	6020 W Quinault Avenue	28,808,902
Crestwood Investments	3324 W 19th Avenue	25,716,463
City of Kennewick - Grange Park	1620 S Union Street	23,204,511
City of Kennewick - Wastewater Treatment Plant	416 N Kingwood Street	19,803,876
Benton County Justice Center	7122 W Okanogan Place	18,291,319
City of Kennewick - Southridge Sports Complex ¹	2901 Southridge Boulevard	14,302,716
Wolff Grandridge Apts, LLC	725 N Center Parkway	13,874,083
City of Kennewick - Southridge Sports Complex ²	2901 Southridge Boulevard	13,509,035
City Of Kennewick - Hansen Park ³	602 S Columbia Center Boulevard	13,280,132
Baker Produce	223 W Railroad Avenue	12,648,029
City Of Kennewick - Hansen Park ⁴	602 S Columbia Center Boulevard	12,576,965
Lakeside Apartments	5100 W Clearwater Avenue	11,909,704
Columbia Mobile Village	4815 W Clearwater Avenue #A	11,068,896
City Of Kennewick - Columbia Center Blvd. Irrigation System	7531 W Okanogan Place	10,839,993
Santiago Sunset Estates	2105 N Steptoe Street #2	10,238,560
Benton County Justice Center	7122 W Okanogan Place	10,130,841
Whispering Winds Home Park	2930 W 7th Ave	9,872,764
City Of Kennewick - Sunset Park	733 N Center Parkway	9,556,339
Top 20 Users Consumption Total		418,282,630
Water System Total Consumption		3,816,085,514
Percentage of Total		11.0%

(1) Account No. 49002966-00.

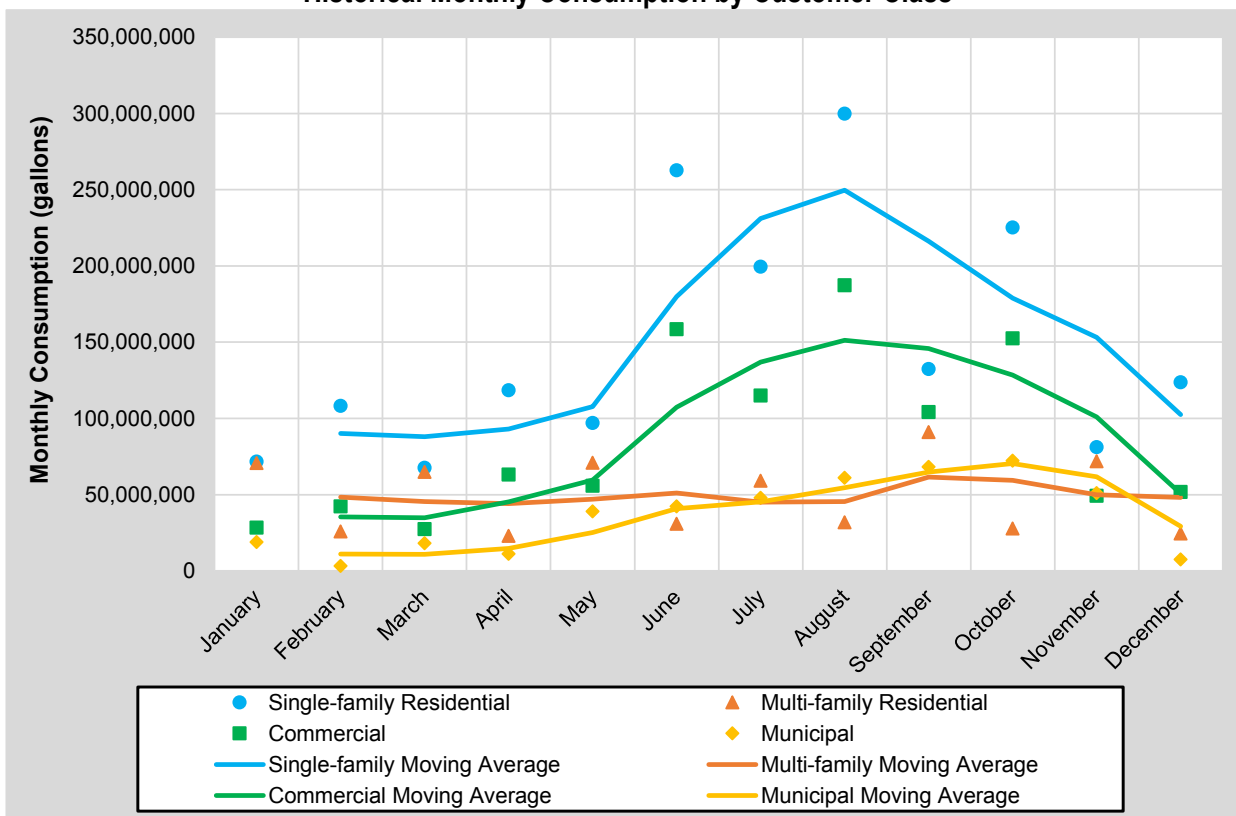
(2) Account No. 49002965-00.

(3) Account No. 48000525-00

(4) Account No. 48000526-00.

Demand varies throughout the year, typically peaking in the hot summer months. Residential and commercial customers often peak at different times or have different peaking factors because their uses differ. Based on the average of 2013 and 2014 monthly consumption data (2012 monthly data was unavailable), the demand for single-family residential customers in the City's water service area peaks in August, as shown in **Chart 2-3**. However, since the City reads meters every other month, the monthly consumption shown on the chart is not entirely indicative of the specific month when the consumption occurred. The August peak is based on meter readings in August, but the actual peak consumption may have occurred in July. A two-period moving average trendline is shown in **Chart 2-3** for each customer class to approximate the actual monthly consumption based on 2013 and 2014 average consumption data. The 2013 and 2014 average consumption data are also shown in **Chart 2-3** as data points.

Chart 2-3
Historical Monthly Consumption by Customer Class



WATER SUPPLY

Water supply is the total amount of water supplied to the system, as measured by the meters at each supply source. Water supply differs from water consumption in that water supply is the recorded amount of water put into the system, and water consumption is the recorded amount of water taken out of the system. The measured amount of water supply in any system is typically more than the measured amount of water consumption, due to water system leaks and non-metered water uses, which will be described more in the **Distribution System Leakage** section. Additionally, the City completed the construction of an aquifer storage recovery (ASR) well in 2014, which utilizes water from the City's water treatment plant (WTP) and Ranney wells for aquifer recharge. ASR well testing took place in 2014 and 2015, with the City authorized to supply ASR recovery water into the potable water system, which is discharged directly into Zone 4 of the water system. The 2014 and 2015 net supply to the water system is the WTP supply, Ranney well supply, and ASR recovery supply (gross supply) without the volume of water utilized to recharge the ASR well.

Connection and consumption volumes by customer class for 2015 were not available in early 2016 for inclusion with this WCP. However, monthly 2015 supply volumes by source were available, and have been included in this WCP. **Table 2-6** summarizes the total amount of water supplied by the City's sources from 1994 through 2015, the City's annual water service area population, the calculated average day demand (ADD), and the ADD per capita.

**Table 2-6
Historical Water System Demand**

Year	Annual Supply Volume (MG) ¹								Average Day Demand (gpm)	Water Service Area Population	Average Demand Per Capita (gal/day/capita)
	WTP	Ranney Well No. 4	Ranney Well No. 5	WTP and Ranney Well Supply	ASR Recovery	Gross Supply ^{2,3}	ASR Recharge	Net Supply ⁴			
1994	---	---	---	---	---	3,757.0	---	3,757.0	7,148.0	55,274	186
1995	---	---	---	---	---	3,684.0	---	3,684.0	7,009.1	56,419	179
1996	---	---	---	---	---	3,405.0	---	3,405.0	6,478.3	56,358	166
1997	---	---	---	---	---	2,870.0	---	2,870.0	5,460.4	57,649	136
1998	---	---	---	---	---	3,189.0	---	3,189.0	6,067.4	58,763	149
1999	---	---	---	---	---	3,437.0	---	3,437.0	6,539.2	59,498	158
2000	---	---	---	---	---	3,406.0	---	3,406.0	6,480.2	60,780	154
2001	---	---	---	---	---	3,483.0	---	3,483.0	6,626.7	61,130	156
2002	---	---	---	---	---	3,538.0	---	3,538.0	6,731.4	61,709	157
2003	---	---	---	---	---	3,674.0	---	3,674.0	6,990.1	63,415	159
2004	---	---	---	---	---	3,739.0	---	3,739.0	7,113.8	64,144	160
2005	---	---	---	---	---	3,704.0	---	3,704.0	7,047.2	65,744	154
2006	---	---	---	---	---	3,541.0	---	3,541.0	6,737.1	67,143	144
2007	1,410.4	440.3	1,925.1	3,775.7	---	3,775.7	---	3,775.7	7,183.7	67,871	152
2008	1,909.6	268.6	1,549.3	3,727.5	---	3,727.5	---	3,727.5	7,091.9	68,128	150
2009	2,314.3	151.7	1,475.5	3,941.5	---	3,941.5	---	3,941.5	7,499.0	70,871	152
2010	1,585.9	341.5	1,739.3	3,666.6	---	3,666.6	---	3,666.6	6,976.1	72,940	138
2011	1,203.2	347.7	1,985.4	3,536.3	---	3,536.3	---	3,536.3	6,728.2	76,356	127
2012	1,245.8	442.0	2,060.5	3,748.2	---	3,748.2	---	3,748.2	7,131.3	77,078	133
2013	1,247.7	423.3	2,050.9	3,721.9	---	3,721.9	---	3,721.9	7,081.3	78,334	130
2014 ³	1,473.9	448.9	2,088.0	4,010.7	72.5	4,083.2	106.3	3,976.9	7,566.4	80,986	135
2015 ³	1,606.3	415.0	2,005.8	4,027.1	62.7	4,089.8	79.2	4,010.6	7,630.5	82,187	134
Average 2011 to 2015											132

(1) Annual supply volume by source not available prior to 2007.

(2) 2007 to 2013: Gross Supply = WTP + Ranney Well No. 4 + Ranney Well No. 5.

(3) In 2014 and 2015: Gross Supply = WTP + Ranney Well No. 4 + Ranney Well No. 5 + ASR Recovery.

(4) Net supply = Gross Supply - ASR Recharge.

The City has experienced a trend of decreasing per capita water demand since the 1990s, as shown in **Table 2-6**, which is most likely the result of water use efficiency practices. The City's 5-year average per capita demand of 132 gallons per day from 2011 through 2015 will be used later in this chapter to forecast average water demands in future years, based on future population projections shown in **Table 2-11**.

Table 2-7 shows the average demand of each of the City's seven existing pressure zones, which include portions of Zone 1 supplied via Zone 2 pressure reducing valves (PRVs), based on 2015 water demand data. The data is shown with and without supply to recharge the City's ASR well, which is located within Zone 4. Most of the water system demand is in Zone 2, as shown in **Table 2-7**. **Figure 1-1** displays the City's existing pressure zones.

Table 2-7
2015 Demands by Pressure Zone

Zone	ADD (gpm)	Percentage of System Demand
Without ASR Recharge		
1 (Direct Service)	1,616	21.2%
1 (via Zone 2 PRVs)	122	1.6%
2	3,127	41.0%
3	2,132	27.9%
4	503	6.6%
4.5	67	0.9%
5	63	0.8%
Total	7,630	100.0%
With ASR Recharge		
1 (Direct Service)	1,616	20.8%
1 (via Zone 2 PRVs)	122	1.6%
2	3,127	40.2%
3	2,132	27.4%
4	654	8.4%
4.5	67	0.9%
5	63	0.8%
Total	7,781	100.0%

Chart 2-4 shows the historical amount of water supplied monthly to the City for 2010 through 2015. The peak supply months generally occur in July and August when temperatures are the warmest and irrigation demands are highest. The 2014 and 2015 volumes shown for April through July are higher than in previous years because the City was utilizing water during these months to recharge the aquifer for the ASR well.

Chart 2-4
Historical Monthly Water Supply

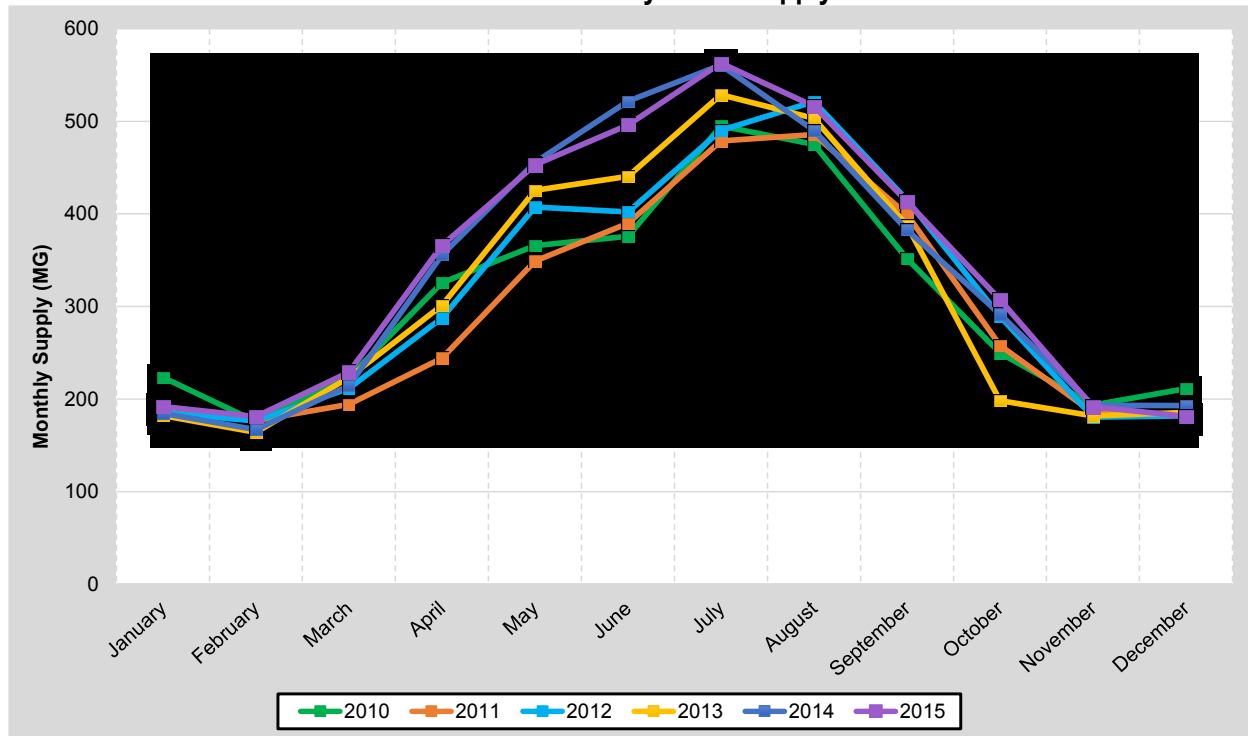
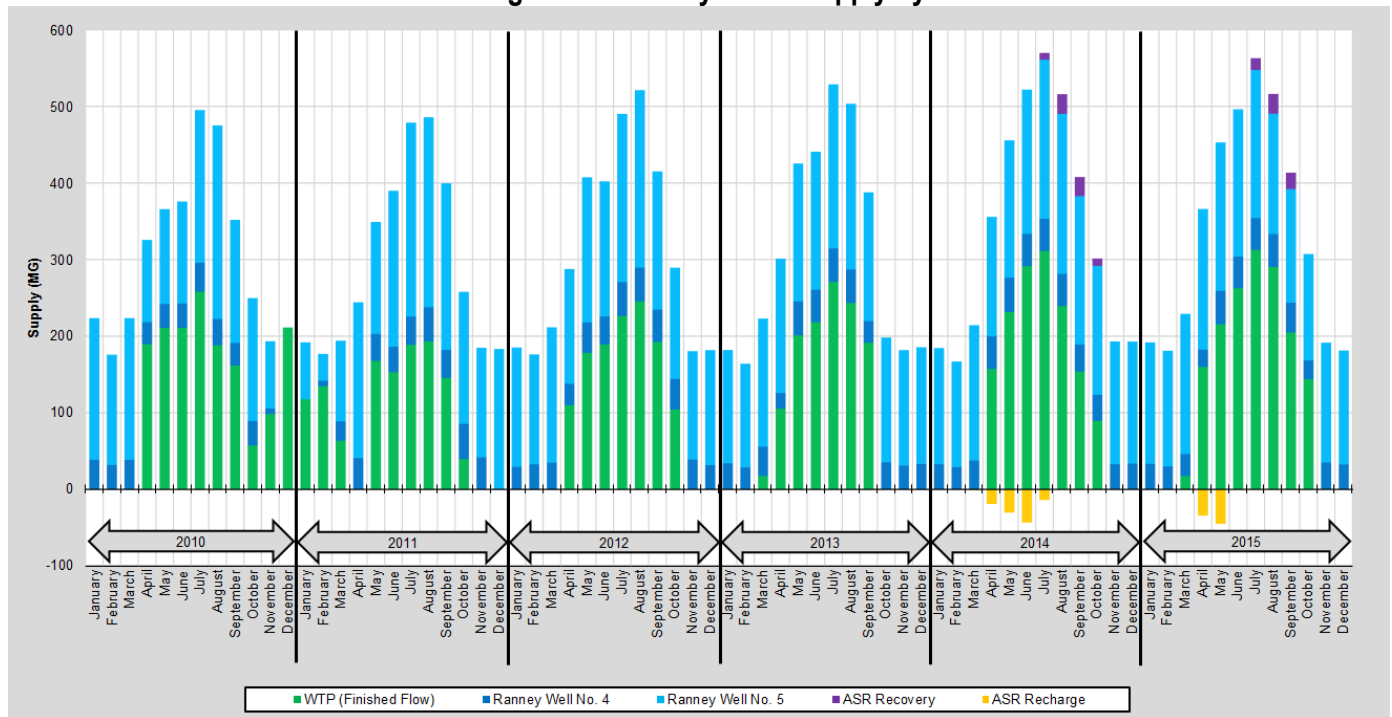


Chart 2-5 identifies the monthly proportion of the City's water supplied by the WTP, Ranney Wells Nos. 4 and 5, and the ASR well from 2010 through 2015. ASR recharge volumes are shown in **Chart 2-5** as a negative value to indicate the volume of water supply not consumed by customers and instead utilized to recharge the aquifer.

Chart 2-5
2010 through 2015 Monthly Water Supply by Source



DISTRIBUTION SYSTEM LEAKAGE

The difference between the amount of water supply and water consumption is the amount of distribution system leakage (DSL). The amount of DSL in a water system is calculated as the difference between the amount of water supply and the amount of authorized water consumption. There are many sources of DSL in a typical water system, including water system leaks, inaccurate supply metering, inaccurate customer metering, well backwash, illegal water system connections or water use, fire hydrant usage, water main flushing, and malfunctioning telemetry and control equipment resulting in reservoir overflows. Several of these types of usages, such as water main flushing and fire hydrant usage, may be considered authorized uses if they are tracked and estimated. Although real losses from the distribution system, such as reservoir overflows or leaking water mains, should be tracked for accounting purposes, these losses must be considered leakage and not included in the authorized consumption calculations. The Water Use Efficiency (WUE) Rule, which became effective in 2007, established a DSL standard of 10 percent or less based on a 3-year rolling average.

The amount of DSL in the City's system gradually decreased from 2008 through 2014, as shown in **Table 2-8**. Although the City's 2013 supply and consumption records were reviewed in detail, some of the data shown are not accurate, which is evident from the negative DSL value presented in the table. Inaccurate customer metering, billing, or data recording is likely the cause of this improbable value. The City tests source meters for proper operation on an annual basis, and calibrates the meters if needed. In 2014, the City verified that the source meters at the Ranney wells and the WTP meet the American Water Works Association (AWWA) operating standards. **Table 2-8** reports the total system leakage and the DSL for 2008 through 2014. The rolling 3-year average for DSL has been below 10 percent each year. The City will continue to record the water used for construction, flushing, street cleaning, and fire department uses. The City will also implement the WUE program contained in **Chapter 4**.

Table 2-8
Distribution System Leakage

Description	Year						
	2008	2009	2010	2011	2012	2013	2014
Authorized Consumption (MG)							
Metered Customer Use	3,511.9	3,674.0	3,482.1	3,492.4	3,644.1	3,702.4	3,816.1
General Unmetered Reports	---	27.7	25.0	10.7	---	---	---
Dead End Flushing	---	---	---	---	4.23	6.30	6.61
Routine Maintenance	---	---	---	---	1.52	18.17	24.42
City Fire Department	---	---	---	---	0.26	0.03	0.02
County Fire Department	---	---	---	---	0.03	0.00	0.00
Contractor Hydrant Use	---	---	---	---	2.73	1.07	4.26
ASR Recharge	---	---	---	---	---	---	106.33
Total Authorized Consumption	3,511.9	3,701.7	3,507.1	3,503.1	3,652.8	3,728.0	3,957.7
Total Supply (MG)							
Gross Supply (Finished Water)	3,727.5	3,941.5	3,666.6	3,536.3	3,748.2	3,721.9	4,083.2
Distribution System Leakage (MG)							
Total DSL Volume	215.6	239.8	159.5	33.2	95.4	-6.1	125.5
Total DSL Percentage	5.8%	6.1%	4.4%	0.9%	2.5%	-0.2%	3.1%
Rolling 3-Year Average DSL Percentage	---	---	---	3.9%	2.6%	1.1%	1.9%
Adjusted DSL Percentage ¹	5.8%	6.8%	5.0%	1.2%	2.8%	0.5%	4.0%

(1) The adjusted DSL percentage is based on the difference between metered consumption and net supply. The calculation does not include the DSL reduction associated with other authorized non-metered consumption.

The annual DSL percentages are applied to the consumption by water use classification as reported in **Table 2-4** to determine the net supply per water use classification. Supply per water use classification for 2008 through 2014 is summarized in **Table 2-9**. The net supply per water use classification is used in the equivalent residential unit calculations.

Table 2-9
Average Annual Supply by Customer Class

Year	DSL ²	Annual Supply (MG) ¹				Total Demand (i.e. Net Supply)
		Single-family Residential	Multi-family Residential	Commercial	Municipal	
2008	5.8%	1,700.9	531.0	1,079.6	416.0	3,727.5
2009	6.8%	1,859.4	662.6	1,036.9	382.6	3,941.5
2010	5.0%	1,671.7	636.4	967.6	391.0	3,666.6
2011	1.2%	1,618.4	610.0	921.2	386.7	3,536.3
2012	2.8%	1,664.7	632.9	1,049.7	400.9	3,748.2
2013	0.5%	1,694.9	618.4	959.7	449.0	3,721.9
2014	4.0%	1,804.0	642.1	1,070.4	460.5	3,976.9

(1) The adjusted DSL percentage is applied to the metered consumption for each individual water use classification to calculate the demand associated with each individual water use classification.

(2) The adjusted DSL is the difference in metered consumption and supply. The calculation does not include the DSL reduction associated with other authorized non-metered consumption.

EXISTING EQUIVALENT RESIDENTIAL UNITS

The demand of each customer class can be expressed in terms of equivalent residential units (ERUs) for demand forecasting and planning purposes. One ERU is equivalent to the amount of water used by a single-family residence. As shown in **Table 2-10**, the demand per ERU is initially calculated for the single-family residential class based on the average annual single-family residential demand, as calculated in **Table 2-9**, and the average number of single-family residential connections. For the single-family residential class, the single-family ERUs equal the single-family number of connections. The number of ERUs represented by the demand of the other customer classes is determined from the total demand of the customer class and the demand per ERU from the single-family residential demand data. Thus, the demand per ERU for each year is the same for all customer classes, as shown in **Table 2-10**.

Table 2-10 presents the computed number of ERUs for each customer class from 2008 through 2014. The average annual demands shown are based on the net supply data that was computed from the consumption of each customer class (**Table 2-4**) and the average percentage of adjusted DSL from each year (**Table 2-8**). A summary of the calculation is presented in **Table 2-10**.

Table 2-10
Equivalent Residential Units (Computed Values)

Year	Average Number of Connections	Average Annual Demand (MG)	Demand per ERU (gallons/day/ERU)	Total ERUs
Single-family Residential (ERU Basis)				
2008	17,592	1,700.9	265	17,592
2009	17,873	1,859.4	285	17,873
2010	18,206	1,671.7	252	18,206
2011	18,524	1,618.4	239	18,524
2012	18,688	1,664.7	244	18,688
2013	18,930	1,694.9	245	18,930
2014	19,975	1,804.0	247	19,975
Average 2011 to 2014			244	
Multi-family Residential				
2008	1,177	531.0	265	5,492
2009	1,170	662.6	285	6,369
2010	1,171	636.4	252	6,931
2011	1,175	610.0	239	6,983
2012	1,183	632.9	244	7,105
2013	1,182	618.4	245	6,907
2014	1,255	642.1	247	7,109
Commercial				
2008	1,943	1,079.6	265	11,166
2009	1,968	1,036.9	285	9,967
2010	2,006	967.6	252	10,538
2011	2,033	921.2	239	10,544
2012	2,061	1,049.7	244	11,784
2013	2,085	959.7	245	10,719
2014	2,390	1,070.4	247	11,852
Municipal				
2008	148	416.0	265	4,302
2009	152	382.6	285	3,678
2010	152	391.0	252	4,259
2011	160	386.7	239	4,427
2012	166	400.9	244	4,500
2013	167	449.0	245	5,015
2014	181	460.5	247	5,099
System-wide Totals				
2008	20,860	3,727.5	265	38,552
2009	21,163	3,941.5	285	37,887
2010	21,535	3,666.6	252	39,933
2011	21,892	3,536.3	239	40,477
2012	22,098	3,748.2	244	42,077
2013	22,364	3,721.9	245	41,570
2014	23,801	3,976.9	247	44,034
Average 2011 to 2014			244	

The average demand per ERU from 2011 through 2014 was 244 gallons per day. The average demand per ERU does not include data prior to 2011, as the average demand per ERU was approximately 10 percent higher between 2008 and 2010, compared to the more recent data between 2011 and 2014. The City's recent average demand per ERU of 244 gallons per day will be used later in this chapter to forecast ERUs in future years, based on estimated future demands. This demand per ERU value will also be used to determine the capacity (in terms of ERUs) of the City's existing water system in **Chapter 3**.

SERVICE AREA PROJECTIONS

PROJECTED LAND USE, POPULATION, AND WATER DEMAND

Projected Land Use

The City is expected to infill existing undeveloped and underdeveloped land within the City limits with residential and commercial development. The City anticipates a large concentration of growth to occur in the commercial and industrial areas west of N. Kellogg Street and north of W. Clearwater Avenue, and in the predominantly low density residential area in the south and southwest portion of the City limits. The City has also designated approximately 2,900 acres (4.5 square miles) of urban reserve south of Interstate 82 for future industrial growth, shown in **Figure 2-1**. The timeline and extent of the growth will be developer driven, and exact locations of future growth are unknown due to the various options available to developers.

Projected Population

Projected future growth for the City was presented in the 2013 update to the County *Comprehensive Plan* through 2034, and is shown in **Table 2-11**. The projected 2035 (20-year) City limits population projection was calculated assuming growth will occur at an average annual growth rate equal to the 2029 to 2034 projections. The projected 2035 (20-year) water service area population projection was calculated assuming growth will occur at the same 20-year rate projected in the City's 2010 WCP. **Table 2-11** includes the projected future growth within the future water service area boundary, which represents an average growth rate of approximately 1.5 percent per year within the City limits and water service area. The resulting projections for the City's water service area are in accordance with the 2013 update to the County's *Comprehensive Plan*.

**Table 2-11
Population Projections**

Year	Description	City Limits Population	Water Service Area Population
2014	Base Year	77,700	80,986
2015	Existing	78,290	82,187
2016	+1 Year	78,935	83,540
2017	+2 Years	80,239	84,893
2018	+3 Years	81,544	86,246
2019	+4 Years	82,848	87,599
2020	+5 Years	84,160	88,952
2021	+6 Years	85,472	90,306
2022	+7 Years	86,784	91,659
2023	+8 Years	88,096	93,012
2024	+9 Years	89,408	94,365
2025	+10 Years	90,720	95,718
2026	+11 Years	92,032	97,071
2027	+12 Years	93,345	98,424
2035	+20 Years	103,931	109,643

These population projections, along with the historical per capita water use data presented in this chapter, form the basis for determining the future water demands of the City's water system. This analysis and its results are presented in the following sections.

Projected Non-residential Water Needs

The projected future water system in the 6-year, 10-year, and 20-year planning periods is expected to have approximately the same proportion of non-residential connections as the existing ratio, which is approximately 11 percent.

Projected Non-revenue Water

The projected non-revenue water is expected to decrease or have the same proportion as it currently does. See the WUE program contained in **Chapter 4** for additional information.

Average Day Demand

ADD is the total amount of water delivered to the system in a year divided by the number of days in the year. The ADD is determined from the system's historical water use patterns and can be used to project future demand within the system. ADD data is typically used to determine standby storage requirements for water systems. Standby storage is the volume of a reservoir used to provide water supply under emergency conditions when supply facilities are out of service. Water supply records from the City's supply facilities were reviewed to determine the system's ADD, which is based on the net supply to the system, as shown in **Table 2-6**.

Maximum Day Demand

Maximum day demand (MDD) is the maximum amount of water used throughout the system during a 24-hour time period of a given year. MDD typically occurs on a hot summer day when lawn watering is occurring throughout much of the system. In accordance with Washington Administrative Code (WAC) 246-290-230 – Distribution Systems, the distribution system shall provide fire flow at a minimum pressure of 20 pounds per square inch (psi) during maximum day

demand conditions. Supply facilities (e.g., wells, springs, pump stations, interties) are typically designed to supply water at a rate that is equal to or greater than the system's MDD.

Water supply and reservoir level telemetry records for August 2013 through June 2015 were used to determine the system's MDD, which is calculated to be 14,191 gallons per minute (gpm), based on the demands on July 9, 2014, as shown in **Table 2-12**. Although historical water supply and reservoir level records were not available prior to August 2013, the calculated July 9, 2014 MDD results in a larger MDD/ADD peaking factor than was assumed in the City's 2010 WCP; therefore, this MDD is believed to be a more accurate representation of the City's existing water system demands. This MDD is based on the actual demand of the water system customers, and not water used for ASR recharge. During periods of high demands, the City has the ability to restrict or prevent ASR recharge to ensure adequate water supply is available to the City's water system customers.

Table 2-12
Peak Demands and Peaking Factors

Description	Date	Demand (gpm)
Average Day Demand (ADD)	2014	7,566
Maximum Day Demand (MDD)	Wednesday, July 09, 2014	14,191
Peak Hour Demand (PHD)	Hourly Data Unavailable Assumed PHD/ADD = 2.88 (Same as 2009 WCP)	21,791
Peaking Factors		
MDD/ADD		1.88
PHD/MDD		1.54
PHD/ADD		2.88

Peak Hourly Demand

Peak hour demand (PHD) is the maximum amount of water used throughout the system, excluding fire flow, during a 1-hour time period of a given year. In accordance with WAC 246-290-230, Distribution Systems, new public water systems or additions to existing systems shall be designed to provide domestic water at a minimum pressure of 30 psi during PHD conditions. Equalizing storage requirements are typically based on PHD data.

The PHD, like the MDD, is typically determined from the combined flow of water into the system from all supply sources and reservoirs. Historical hourly water supply and reservoir level telemetry records for the City's supply and storage facilities are only available for a portion of 2013 and 2014. Therefore, the system's PHD could not be computed based on actual system data. Instead, it was estimated by applying the same PHD/ADD ratio as was presented in the City's 2010 WCP. This PHD peaking factor is comparable to the peaking factors for similarly sized water systems within the region. This peaking factor results in an estimated PHD of 21,791 gpm for the peak hour as shown in **Table 2-12**.

Table 2-12 also shows the peaking factors of the water system based on the ADD, MDD, and PHD data presented above. These peaking factors will be used later in this chapter in conjunction with projected ADD to project future MDDs and PHDs of the system.

DEMAND FORECASTING

BASIS FOR PROJECTING DEMANDS

Future demands were calculated from the results of the existing per capita demand computations shown in **Table 2-6** and the projected population data from **Table 2-11**. Future demand projections were computed with and without water savings expected from implementing WUE measures contained in the City's WUE program in **Chapter 4**. The City's 5-year average per capita demand of 132 gallons per day from 2011 through 2015 was used for all demand projections without savings from WUE measures. The per capita demand was reduced to reflect the WUE goals and used as the basis for future water demand projections with implementation of the WUE program. The City's WUE program presents a goal to reduce the water demand per capita by 1 percent each year through the 10-year planning period.

DEMAND FORECASTS AND WUE

Table 2-13 presents the incremental 6-year, 10-year, and 20-year water demand forecasts for the City's water system. The actual demand data from 2014 and 2015 is also shown in the table for comparison purposes. The future ADDs were projected based on population estimates for the given years and the estimated demand per capita values. The future MDDs and PHDs shown were computed from the projected ADDs and the existing system peaking factors shown in **Table 2-12**. The future demand projections are also shown with and without estimated reductions in water use from achieving WUE goals.

The analysis and evaluation of the existing water system with proposed improvements, as presented in **Chapters 3** and **8**, is based on the 20-year projected demand data without WUE reductions. This ensures that the future system will be sized properly to meet all requirements, whether or not additional water use reductions are achieved. However, the City will continue to pursue reductions in water use by implementing the WUE program contained in **Chapter 4** of this WCP.

Table 2-13
Future Water Demand Projections

Description	Base Year	Existing	Projected												
	2014	2015	2016 +1 yr	2017 +2 yrs	2018 +3 yrs	2019 +4 yrs	2020 +5 yrs	2021 +6 yrs	2022 +7 yrs	2023 +8 yrs	2024 +9 yrs	2025 +10 yrs	2026 +11 yrs	2027 +12 yrs	2035 +20 yrs
Population Data															
Water Service Area Population	80,986	82,187	83,540	84,893	86,246	87,599	88,952	90,306	91,659	93,012	94,365	95,718	97,071	98,424	109,643
Increase from Base Year 2014	---	1,201	2,554	3,908	5,261	6,614	7,967	9,320	10,673	12,026	13,379	14,732	16,086	17,439	28,658
Demand Basis Data (gal/day/capita)															
ADD Per Capita without WUE	135	134	132	132	132	132	132	132	132	132	132	132	132	132	132
ADD Per Capita with WUE	---	134	132	131	130	128	127	126	125	123	122	121	120	119	119
Average Day Demand (gpm)															
Demand without WUE	7,566	7,630	7,641	7,764	7,888	8,012	8,136	8,259	8,383	8,507	8,631	8,754	8,878	9,002	10,028
Demand with WUE	---	7,630	7,679	7,725	7,770	7,813	7,854	7,894	7,932	7,968	8,003	8,037	8,069	8,100	9,023
Maximum Day Demand (gpm)															
Demand without WUE	14,191	14,311	14,330	14,562	14,794	15,026	15,258	15,490	15,723	15,955	16,187	16,419	16,651	16,883	18,808
Demand with WUE	---	14,311	14,401	14,488	14,572	14,652	14,730	14,804	14,876	14,945	15,010	15,073	15,134	15,191	16,923
Peak Hour Demand (gpm)															
Demand without WUE	21,791	21,976	22,005	22,362	22,718	23,074	23,431	23,787	24,144	24,500	24,856	25,213	25,569	25,926	28,881
Demand with WUE	---	21,976	22,114	22,248	22,376	22,500	22,619	22,734	22,844	22,949	23,050	23,147	23,239	23,327	25,987

Table 2-14 presents the existing and projected number of ERUs of the system. The ERU forecasts are based on the projected water demands from **Table 2-13** and the average demand per ERU that was computed from the actual 2011 through 2014 data (**Table 2-10**).

Table 2-14
Future ERU Projections

Description	Base Year	Existing	Projected												
	2014	2015	2016 +1 yr	2017 +2 yrs	2018 +3 yrs	2019 +4 yrs	2020 +5 yrs	2021 +6 yrs	2022 +7 yrs	2023 +8 yrs	2024 +9 yrs	2025 +10 yrs	2026 +11 yrs	2027 +12 yrs	2035 +20 yrs
Demand Data (gpm)															
ADD without WUE	7,566	7,630	7,641	7,764	7,888	8,012	8,136	8,259	8,383	8,507	8,631	8,754	8,878	9,002	10,028
ERU Basis Data (gal/day/ERU)															
Demand per ERU without WUE	247	244	244	244	244	244	244	244	244	244	244	244	244	244	244
Equivalent Residential Units (ERUs)															
Total System ERUs	44,034	45,026	45,086	45,816	46,546	47,277	48,007	48,737	49,467	50,198	50,928	51,658	52,389	53,119	59,174

3 | SYSTEM ANALYSIS

INTRODUCTION

This chapter presents the City of Kennewick's (City) performance standards for infrastructure and an evaluation of the water system facilities' ability to meet current and future water demands based on adopted design standards included in this chapter. This evaluation addresses system facilities, including source of supply, water treatment, storage, transmission, and the distribution system. A summary of system deficiencies is presented together with alternatives to correct the deficiencies.

SYSTEM DESIGN STANDARDS

The City has adopted design and construction standards for all new construction. All City and developer constructed projects are required to be designed and constructed to these standards. Standards related to physical configuration and operational requirements can be found in **Chapter 7**. The City adopts the most current versions of the following agency and organizational standards as minimum requirements.

- Washington State Department of Health (DOH) – *Water System Design Manual*
- Washington Administrative Code (WAC) – Chapter 246-290
- Revised Code of Washington (RCW)
- American Public Works Association (APWA)
- Washington State Department of Transportation (WSDOT) – Standard Specifications for Road, Bridge, and Municipal Construction
- WSDOT – Local Agency General Special Provisions
- American Water Works Association (AWWA)
- International Building Code (IBC)
- International Plumbing Code (IPC)

A copy of the standard specifications and details available to the public are included in **Appendix D**. Current versions of the standard specifications and details are also available on the City's website. The following sections describe the City's performance standards that may not be addressed or exceed those listed in the above standards.

WATER QUALITY

1. The City will pursue steps to meet or exceed water quality laws and standards. The City will take reasonable measures to protect its system and customers.
2. Water quality criteria shall meet, at a minimum, the requirements of WAC 246-290-300, 246-290-310, 246-290-320, 246-290-451, and 246-290-480.
3. Drinking water additives shall be compliant with National Sanitation Foundation (NSF) 60 and coatings in contact with drinking water shall be compliant with NSF 61.

4. The quality of the water source shall continuously meet the primary and secondary drinking water standards of the State of Washington and the U.S. Environmental Protection Agency's Safe Drinking Water Act.

AVERAGE AND MAXIMUM DAILY DEMANDS

1. Demand sizing shall comply with WAC 246-290-221.
2. The capacity of the source of supply pumps and transmission mains shall be sufficient to meet maximum day demands (MDD) and replenish storage used during a fire within 72 hours of a fire or other emergency. The supply system should be capable of meeting these criteria with the largest regular supply pump out of service or any other combination of failure that is considered reasonably possible that has an effect on supply sizing, locating, or planning.

PEAK HOUR DEMAND

1. Demand sizing shall comply with WAC 246-290-221.
2. Each pressure zone shall be capable of providing, through supply and storage, the peak hour demand of that pressure zone, without the need for outside or emergency supply.

PUMP STATIONS

1. Pump stations shall include a minimum of two pumps, each sized to meet the MDD requirements. The City shall decide if a spare third bay for installation of an additional pump is required in the future.
2. Pump stations shall be designed to provide ample working space with minimal structural maintenance requirements.
3. Pumps shall be selected to operate within 2 percent of their maximum rated efficiency point at normal system operating conditions.
4. The City shall evaluate and decide if a variable speed drive is required for any new or upgraded pump station.

STORAGE

1. Storage sizing shall comply with WAC 246-290-222 and 246-290-250.
2. Storage must be of sufficient capacity to supplement transmission supply when peak demands are greater than the supply rate and still maintain sufficient storage for a fire or other emergency condition.
3. Under normal conditions, equalizing storage should be replenished within a 24-hour cycle.
4. Standby storage volume must be replenished in 72 hours while continuing to deliver MDD.
5. Nesting of standby and fire flow storage is allowed, consistent with a letter from the Kennewick Fire Department that is included in **Appendix U**.
6. Sizing of new reservoirs will consider current fire flow standards for "grandfathered" facilities.

FIRE FLOW

Fire flow demand is the amount of water required during firefighting as defined by applicable codes. Fire flow requirements are nationally established for individual buildings and expressed in terms of

flow rate (gallons per minute (gpm)) and flow duration (hours). Fighting fires imposes the greatest demand on the water system because a high rate of water must be supplied over a period of time, thus requiring each component of the system to be properly sized and configured to operate at its optimal condition while continuing to provide potable water to the community. Adequate storage and supply is ineffective if the transmission or distribution system cannot deliver water at the required rate and pressure necessary to extinguish a fire.

Planning-level fire flow requirements are established by the City's Fire Marshal for the different land use categories to provide a target level of service for planning and sizing future water facilities. The City's planning-level fire flow requirement for each land use category is shown in **Table 3-1**; the water system analyses presented in this chapter are based on an evaluation of the water system providing sufficient fire flow in accordance with these requirements in addition to the system's projected demands. The fire flow requirements shown do not necessarily equate to actual existing or future fire flow requirements at all buildings, as requirements are typically based on actual building size, construction type, and fire suppression systems provided. Improvements to increase the available fire flow to exceed the fire flow requirements shown in **Table 3-1** shall be the responsibility of the developer. **Table 3-1** does not include potential reductions in fire flow if automatic sprinkler systems are installed within buildings. Automatic sprinkler systems generally reduce the fire flow requirement for new buildings, which will likely result in fire flow requirements that are lower than the general planning-level fire flow requirements.

Table 3-1
Planning-level Fire Flow Requirements

Land Use	Planning-level Fire Flow Requirement (gpm)	Duration (hours)
Low Density Residential	1,000	2
Medium Density Residential	1,000	2
Open Space	1,000	2
High Density Residential	3,000	3
Commercial	4,000	4
Public Facilities	4,000	4
Industrial	5,000	4

The City will endeavor to provide these capacities in the appropriate land use area. However, there may be individual buildings or developments that exceed the typical requirements of the local land use. In these cases, the City will require those developments to provide the infrastructure improvements necessary to meet the additional fire flow needs. When such improvements provide benefit to the City as a whole, the City may elect to share the costs of the improvements.

PRESSURE

1. The City shall endeavor to provide a minimum of 30 pounds per square inch (psi) at customer meters during peak hour demand (PHD), not including a fire or emergency.
2. The City shall endeavor to provide a maximum of 120 psi at customer meters during normal demand conditions, not including pressure surges. Individual customers are responsible for providing and maintaining pressure reducing valves at their service when pressure exceeds 80 psi. The City provides a letter to each applicable customer notifying them of the need to install an individual pressure reducing valve. An example letter that the City has previously sent for this purpose is shown in **Appendix V**.

PIPELINES

1. The minimum water main size shall be 8-inch diameter. On dead-end lines where no fire flow is provided within the dead-end line and future extension of the water main is reasonably anticipated to take place, 6-inch diameter mains may be approved.
2. The velocity of water in transmission and distribution mains should be less than 7 feet per second (fps) during PHD.
3. The velocity of water in transmission and distribution mains should be less than 10 fps during fire flow events.
4. Where at all practical, distribution mains shall be looped to increase reliability and water quality, and decrease head losses.
5. All 12-inch diameter and larger pipes shall be ductile iron. Pipes smaller than 12-inch diameter shall be ductile iron or polyvinyl chloride (PVC).
6. A minimum of 10 feet of separation shall be maintained between storm, sewer, and water mains unless it can be shown that such separation is unfeasible.
7. Clearance between water mains and both sanitary sewer and irrigation mains shall follow Washington State Department of Ecology (Ecology) and DOH separation standards.
8. All water mains shall be installed with a minimum of 42 inches of cover.

TELEMETRY SYSTEM

1. Pump stations and reservoirs shall each have a remote telemetry unit (RTU) that monitors and displays local sensor and device status data and communicates with the master telemetry unit (MTU).
2. RTUs shall include backup power, surge, and lightning protection, and be easily capable of expansion for additional input and output signals.
3. RTUs shall be programmed by an integrator of the City's choice. Preprogrammed "package" control units are not allowed.

BACK-UP POWER REQUIREMENTS

1. Reliability standards per WAC 246-293-660 shall be followed.
2. Closed zone pump stations shall have permanent backup power installed onsite with an automatic transfer switch.
3. All new pump stations shall include provisions for connecting a portable engine generator to run the facility in the event of a power failure.
4. All RTUs shall include an automatic battery backup.

VALVE AND HYDRANT SPACING

1. Zone valves shall be located at all pressure zone interfaces to allow future pressure zone realignment without the need for additional pipe construction.
2. Isolation valves shall be located wherever necessary to allow individual pipelines to be shut down for repair or installation of new branch mains. In general, three valves shall be provided per cross and two valves per tee.
3. Valves shall be placed at a maximum of 1,000-foot intervals where practical.
4. Combination air/vacuum valves shall be placed at all high points.

5. Hydrant spacing and locations shall be approved by the Fire Department, but in no case shall be more than 500 feet apart in single-family residential areas or more than 300 feet apart in non-single-family residential areas.
6. Hydrants shall be located at street intersections whenever possible.
7. Hydrants shall be dry, barrel type, conforming to AWWA C502.

WATER SYSTEM ANALYSIS

PRESSURE ZONES

The ideal static pressure of water supplied to customers is between 40 and 80 psi. Pressures within a water distribution system are commonly as high as 120 psi, requiring pressure regulators on individual service lines to reduce the pressure to 80 psi or less. It is difficult for the City's water system (and most others) to maintain distribution pressures between 40 and 80 psi, primarily due to the topography of the water service area.

Table 3-2 lists each of the City's five pressure zones, the highest and lowest elevation served in each zone, and the minimum and maximum distribution system pressures within each zone, based on maximum static water conditions (full reservoirs and zero demands). The City is currently providing water at pressures of at least 29 psi throughout the entire water system, as shown in the table. This is below the DOH minimum requirement of 30 psi. The lowest pressures in the distribution system occur in Zone 1 at the intersection of W. 19th Avenue and S. Jean Street, and in Zone 4 along S. Lincoln Street, in the neighborhood south of Ridgeline Drive. The highest pressures in the system occur in a Zone 4 transmission main through the Canyon Lakes Golf Course, and in Zone 5 along S. Sherman Street, just north of the intersection with Hildebrand Boulevard. The services at these locations, as well as services in other pressure zones, have static pressures greater than 80 psi. All water services in these high pressure areas are required to have individual pressure reducing valves, installed and maintained by the customer, to reduce the service pressure to 80 psi or less.

Table 3-2
Minimum and Maximum Distribution System Pressures

Pressure Zone	Highest Elevation Served		Lowest Elevation Served	
	Elevation (feet)	Static Pressure (psi)	Elevation (feet)	Static Pressure (psi)
Zone 1	465	29	342	82
Zone 1 (from Zone 2 PRVs)	486	60	349	119
Zone 2	575	34	403	109
Zone 3	676	45	521	112
Zone 4	846	29	596	137
Zone 5	921	54	691	153

SOURCE ANALYSIS

This section evaluates the City's sources to determine if they have sufficient capacity to provide water supply to the system at a rate that meets the existing and future demands of the system. This section also identifies deficiencies that are unrelated to the capacity of the facilities.

Source Analysis Criteria

Source facilities must be capable of adequately and reliably supplying high-quality water to their respective systems. In addition, the supply facilities must provide a sufficient quantity of water at pressures that meet the requirements of WAC 246-290-230. The evaluation of the combined capacity of the sources in this section is based on the criteria that they provide supply to the system at a rate that is equal to or greater than the MDD of the system.

Source Analysis Results

The City's existing active sources include Ranney Wells No. 4 and No. 5, and the City's Columbia River surface water treatment plant (WTP). The combined capability of these sources to meet both existing, 6-year (2021), and 10-year (2025) demand requirements, based on existing pumping capacities of the individual supply facilities, is presented in **Table 3-3**. In addition to the existing supply facilities, the City completed construction of an aquifer storage and recovery (ASR) well in 2014. Ongoing testing of the ASR Well and the aquifer storage capacity has been occurring since the well was constructed, and if the ASR Well becomes fully developed and is granted source approval by regulatory agencies, a maximum of 2,080 gpm may be pumped from the well. For the purposes of the future system evaluation, it is assumed that the ASR Well will be an active source beyond the 10-year planning period, with the pumping rate of the well shown to meet the projected demands of the system, as shown in **Table 3-3**.

Table 3-3
Water Source Capacity Evaluation

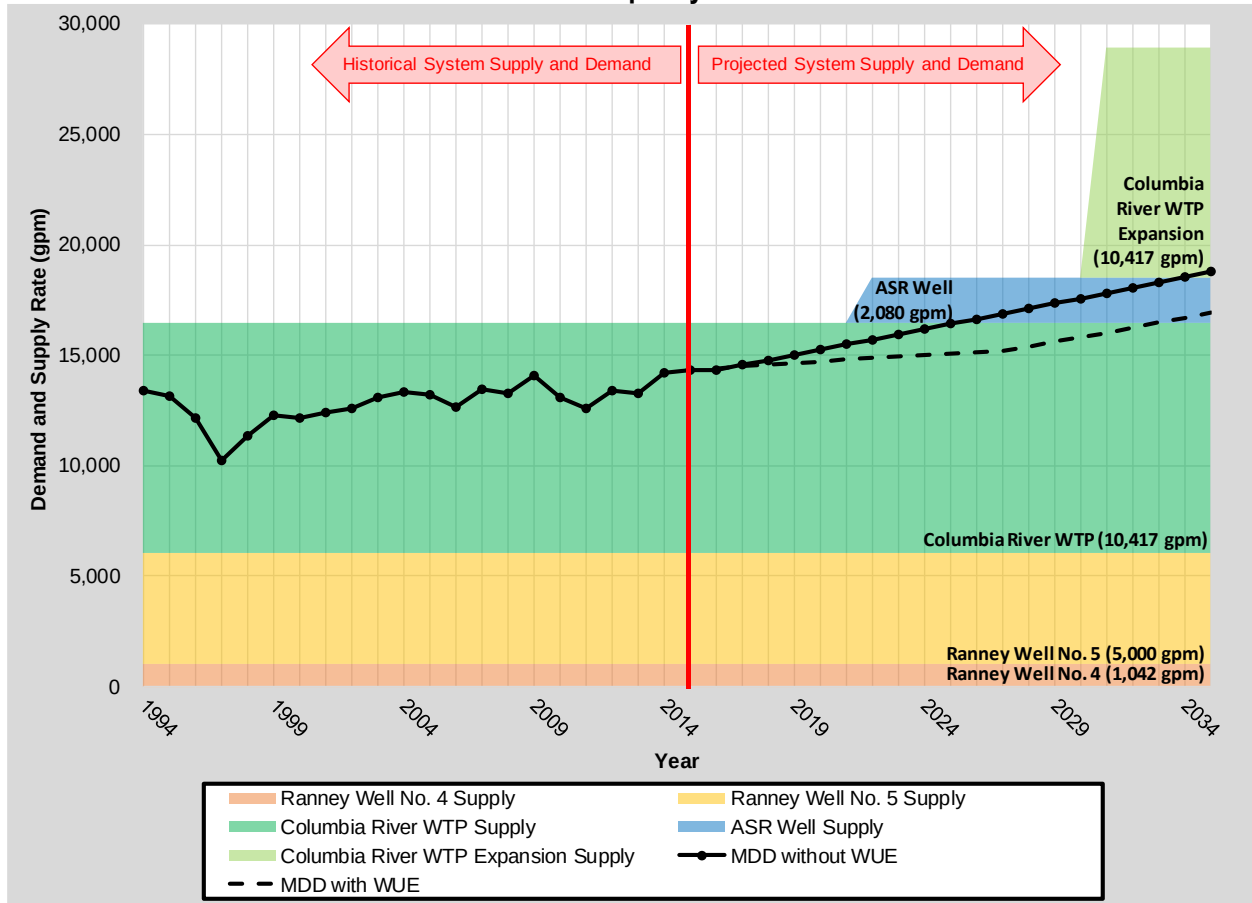
Description	Existing	Future Projections						
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2029 (+14 years)	2031 (+16 years)	2033 (+18 years)	2035 (+20 years)
Required Source Capacity (gpm)								
Maximum Day Demand	14,311	15,490	16,419	16,883	17,347	17,821	18,308	18,808
Available Source Capacity (gpm)								
Ranney Well No. 4	1,042	1,042	1,042	1,042	1,042	1,042	1,042	1,042
Ranney Well No. 5	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Columbia River WTP	10,417	10,417	10,417	10,417	10,417	10,417	10,417	10,417
ASR Well	---	---	---	425	889	1,363	1,849	2,080
Total Source Capacity	16,458	16,458	16,458	16,883	17,347	17,821	18,308	18,538
Surplus or Deficient Source Capacity (gpm)								
Surplus or Deficiency	2,147	968	39	0	0	0	0	(269)

The projected MDD shown in **Table 3-3** are the demand projections without reductions from water use efficiency efforts, as shown in **Table 2-13** of **Chapter 2**. Therefore, if additional reductions in water use are achieved through water use efficiency efforts, the total source capacity required in the future will be less than that shown in the table.

The results of the source capacity evaluation indicate the City has approximately 2,147 gpm of surplus source capacity to meet existing demands. The City's existing active sources are sufficient to meet the projected demands of the system through 2025, but additional source capacity is needed to meet the projected demands beyond 2025. If the maximum ASR Well pumping rate of 2,080 gpm can be achieved, the City is projected to have a slight source capacity deficiency in 2035 based on the projected MDD without reductions from water use efficiency efforts, as shown in **Chart 3-1**. The

City plans to evaluate an expansion of the Columbia River WTP to meet the projected source capacity requirements.

**Chart 3-1
Water Source Capacity Evaluation**



Source Deficiencies

The City's Ranney Well No. 5 is approved by DOH for a 6,944 gpm (10 million gallons per day (MGD)) capacity, but the maximum sustained pumping rate the City has been able to achieve from the collectors is 5,000 gpm (7.2 MGD).

Emergency power is not available at the WTP, Ranney Well No. 4, or Ranney Well No. 5. The variable frequency drives (VFD) at the WTP's High Service BPS are nearing the end of their useful life. The concrete floor at the Ranney Well No. 4 building is weathered and in need of restoration. Improvements to resolve these deficiencies are included in the City's operations and maintenance budget.

SUPPLY ANALYSIS

This section evaluates the City's existing supply facilities to determine if they have sufficient capacity to provide water supply at a rate that meets the existing and future demands of the one or more zones that they supply. This section also identifies facility deficiencies that are not related to the capacity of the supply facilities.

Supply Analysis Criteria

The evaluation to determine if supply facilities have adequate capacity is based on one of two criteria, as follows: 1) if the pressure zone that the facility provides supply into has water storage, then the amount of supply required is equal to the MDD of the zone; or 2) if the pressure zone that the facility provides supply into does not have water storage, then the amount of supply required is equal to the PHD and the maximum fire flow requirement of the zone. The higher supply requirement of the latter criteria is due to the lack of equalizing and fire flow storage that is typically utilized to provide short-term supply during times of peak system demands. Future supply capacities assume the ASR Well is operational following the 10-year planning period, and that the maximum ASR Well pumping rate of 2,080 gpm can be achieved.

Supply Analysis Results

Zone 1 Facilities

Ranney Wells No. 4 and No. 5, and the Columbia River WTP provide water supply directly to Zone 1. These supply facilities indirectly supply all of the City's customers, via booster pump stations (BPS) or pressure reducing valves (PRVs), and are required to meet the system's existing, projected 6-year (2021), and projected 10-year (2025) MDD. The 2027 and 2035 supply capacity analyses assume the ASR Well is operational, and is providing direct supply to Zone 4 and indirect supply to all higher pressure zones (i.e., Zone 5, Zone 6, etc.). The projected 2035 supply requirements of Zone 4 and the higher pressure zones exceeds the capacity of the ASR Well. Therefore, the Zone 1 supply facilities are required to account for supply to Zone 4 and the higher pressure zones at a rate that is equivalent to the difference between the ASR Well supply capacity and the supply requirement of these pressure zones. **Table 3-4** summarizes the existing and future supply requirements of Zone 1. The results of the analyses indicate that the existing and proposed 6-, 10-, and 12-year configurations are of sufficient capacity to meet the required demands, but that the additional Zone 1 supply will be required to meet the projected 20-year supply requirements. The projected 20-year Zone 1 supply deficiency is equivalent to the projected 20-year source capacity deficiency shown in **Table 3-3**.

Table 3-4
Zone 1 Supply Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Required Supply (gpm)					
Zone 1 MDD	3,031	3,156	3,254	3,305	3,507
Other Zones MDD	11,280	12,334	13,164	13,153	13,220
Total Required Supply	14,311	15,490	16,419	16,458	16,728
Available Supply (gpm)					
Ranney Well No. 4	1,042	1,042	1,042	1,042	1,042
Ranney Well No. 5	5,000	5,000	5,000	5,000	5,000
Columbia River WTP	10,417	10,417	10,417	10,417	10,417
Total Available Supply	16,458	16,458	16,458	16,458	16,458
Surplus or Deficient Supply (gpm)					
Surplus or Deficient Amount	2,147	968	39	0	(269)

Zone 2 Facilities

Water supply to Zone 2 is currently provided by the Golf Course BPS and the 19th and Olympia BPS. These BPSs also indirectly supply isolated portions of Zone 1 via PRVs, and Zones 3, 4, 5, and 6 via other BPSs. The Zone 2 BPSs are required to meet the existing, projected 6-year (2021), and projected 10-year (2025) MDD for Zone 2 and the indirectly supplied pressure zones. The 2027 and 2035 supply capacity analyses assume the ASR Well is operational, and is providing direct supply to Zone 4 and indirect supply to all higher pressure zones (i.e., Zone 5, Zone 6, etc.). The projected 2035 supply requirements of Zone 4 and the higher pressure zones exceeds the capacity of the ASR Well. Therefore, the Zone 2 supply facilities are required to account for supply to Zone 4 and the higher pressure zones at a rate that is equivalent to the difference between the ASR Well supply capacity and the supply requirement of these pressure zones. **Table 3-5** summarizes the existing and future supply requirements of Zone 2. The results of the analyses indicate that the existing and proposed configurations are of sufficient capacity to meet both existing and future demands.

Table 3-5
Zone 2 Supply Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Required Supply (gpm)					
Zone 2 MDD	5,865	6,402	6,824	7,041	7,911
Other Zones MDD	5,415	5,933	6,340	6,134	5,309
Total Required Supply	11,280	12,334	13,164	13,176	13,220
Available Supply (gpm)					
Golf Course BPS	9,900	9,900	9,900	9,900	9,900
19th and Olympia BPS	10,000	10,000	10,000	10,000	10,000
Total Available Supply	19,900	19,900	19,900	19,900	19,900
Surplus or Deficient Supply (gpm)					
Surplus or Deficient Amount	8,620	7,566	6,736	6,724	6,680

Zone 3 Facilities

Water supply to Zone 3 is currently provided by the 47th and Olympia BPS and the 18th and Kellogg BPS. These BPSs also indirectly supply Zones 4, 5, and 6 via other BPSs. The Zone 3 BPSs are required to meet the existing, projected 6-year (2021), and projected 10-year (2025) MDD for Zone 3 and the indirectly supplied pressure zones. The 2027 and 2035 supply capacity analyses assume the ASR Well is operational, and is providing direct supply to Zone 4 and indirect supply to all higher pressure zones (i.e., Zone 5, Zone 6, etc.). The projected 2035 supply requirements of Zone 4 and the higher pressure zones exceeds the capacity of the ASR Well. Therefore, the Zone 3 supply facilities are required to account for supply to Zone 4 and the higher pressure zones at a rate that is equivalent to the difference between the ASR Well supply capacity and the supply requirement of these pressure zones. **Table 3-6** summarizes the existing and future supply requirements of Zone 3. The results of the analyses indicate that the existing and proposed configurations are of sufficient capacity to meet both existing and future demands.

Table 3-6
Zone 3 Supply Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Required Supply (gpm)					
Zone 3 MDD	3,999	4,163	4,293	4,360	4,627
Other Zones MDD	1,188	1,532	1,802	1,526	419
Total Required Supply	5,186	5,695	6,095	5,885	5,045
Available Supply (gpm)					
47th and Olympia BPS	7,300	7,300	7,300	7,300	7,300
18th and Kellogg BPS	7,700	7,700	7,700	7,700	7,700
Total Available Supply	15,000	15,000	15,000	15,000	15,000
Surplus or Deficient Supply (gpm)					
Surplus or Deficient Amount	9,814	9,305	8,905	9,115	9,955

Zone 4 Facilities

Water supply to Zone 4 is currently provided by the 54th and Olympia BPS and the 28th and Irving BPS. These BPSs also indirectly supply Zones 5 and 6 via other BPSs. The Zone 4 BPSs are required to meet the existing, projected 6-year (2021), and projected 10-year (2025) MDD for Zone 4 and the indirectly supplied pressure zones. The 2027 and 2035 supply capacity analyses assume the ASR Well is operational, and is providing direct supply to Zone 4 and indirect supply to all higher pressure zones (i.e., Zone 5, Zone 6, etc.). The projected 2035 supply requirements of Zone 4 and the higher pressure zones exceed the capacity of the ASR Well. Therefore, the City's other supply facilities are required to account for supply to Zone 4 and the higher pressure zones at a rate that is equivalent to the difference between the ASR Well supply capacity and the supply requirement of these pressure zones. **Table 3-7** summarizes the existing and future supply requirements of Zone 4. Even with the full capacity of existing BPSs not considered for the 2027 and 2035 analyses (see footnote 2 in **Table 3-7**), the results of the analyses indicate that the existing and proposed configurations are of sufficient capacity to meet both existing and future demands. The existing BPSs will provide regular supply to Zone 4, specifically in the winter and spring months, but these facilities are presented as backup supply facilities for the 20-year analyses to minimize the projected 20-year supply deficiency in Zone 1.

Table 3-7
Zone 4 Supply Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years) ¹	2027 (+12 years) ¹	2035 (+20 years) ¹
Required Supply (gpm)					
Zone 4 MDD	944	1,105	1,202	1,268	1,529
Other Zones MDD	244	426	600	674	969
Total Required Supply	1,188	1,532	1,802	1,942	2,499
Available Supply² (gpm)					
54th and Olympia BPS	4,400	4,400	4,400	1,517	419
28th and Irving BPS	3,400	3,400	3,400		
ASR Well	---	---	---	425	2,080
Total Available Supply	7,800	7,800	7,800	1,942	2,499
Surplus or Deficient Supply^{1,2} (gpm)					
Surplus or Deficient Amount	6,612	6,268	5,998	0	0

(1) Additional supply to Zone 4 may be required following approval of the ASR Well for water quality purposes relating to the high temperatures of the recovery water. Proposed pressure reducing valves between all of the City's pressure zones will allow the City to move water between zones as needed to facilitate any blending requirements, and will not restrict the City's ability to fully utilize the ASR Well.

(2) The full pumping rates from the 54th and Olympia BPS and the 28th and Irving BPS are available to Zone 4 in 2027 and 2035. A reduced contribution from these pumping facilities is presented in this table for conservatism, and to assign a theoretical operating area for each of the City's sources.

Zone 5 Facilities

Water supply to Zone 5 is currently provided by the 46th and Olson BPS. The Thompson Hill BPS was constructed in 2014, but as of the first quarter of 2016, is not connected to the distribution system. It is anticipated that the Thompson Hill BPS will be connected to the distribution system in 2017. The Zone 5 BPSs will be required to meet the existing and projected MDDs for Zone 5, and the future MDD of any higher pressure zones (i.e., Zone 6, Zone 7, etc.). **Table 3-8** summarizes the existing and future supply requirements of Zone 5. The results of the analyses indicate that the existing and proposed configurations are of sufficient capacity to meet both existing and future demands.

Table 3-8
Zone 5 Supply Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Required Supply (gpm)					
Zone 5 MDD	244	376	450	504	719
Other Zones MDD	0	50	150	170	250
Total Required Supply	244	426	600	674	969
Available Supply (gpm)					
46th and Olson BPS	2,555	2,555	2,555	2,555	2,555
Thompson Hill BPS	---	5,300	5,300	5,300	5,300
Total Available Supply	2,555	7,855	7,855	7,855	7,855
Surplus or Deficient Supply (gpm)					
Surplus or Deficient Amount	2,311	7,429	7,255	7,181	6,886

Zone 6 Facilities

The Zone 6 BPS was constructed in 2014, but no water service connections currently exist in Zone 6. It is likely that the City's future water system will include two hydraulically separated Zone 6's, with one located north of the existing Zone 6 BPS, and another located south of the existing City limits and Urban Growth Area (UGA). For conservatism, the Zone 6 supply analysis was performed if all projected Zone 6 and Zone 7 demand was required to be supplied from the existing Zone 6 BPS. The analyses assumed Zone 6 to operate as a closed pressure zone through the 20-year planning period, with a maximum fire flow requirement of 1,000 gpm, which is consistent with the current planning-level fire flow requirement based on the land use in the existing Zone 6 BPS's operating area. **Table 3-9** summarizes the existing and future supply requirements of Zone 6. The results of the analyses indicate that the existing configuration is of sufficient capacity to meet both existing and future demands.

Table 3-9
Zone 6 Supply Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Required Supply (gpm)					
Zone 6 PHD	0	77	154	169	230
Zone 6 Maximum Fire Flow	1,000	1,000	1,000	1,000	1,000
Other Zones PHD	0	0	77	92	154
Total Required Supply	1,000	1,077	1,230	1,261	1,384
Available Supply (gpm)					
Zone 6 BPS	2,238	2,238	2,238	2,238	2,238
Total Available Supply	2,238	2,238	2,238	2,238	2,238
Surplus or Deficient Supply (gpm)					
Surplus or Deficient Amount	1,238	1,161	1,008	977	854

Supply Facility Deficiencies

A summary of the deficiencies at the City's BPS facilities is as follows. Improvements to resolve these deficiencies are identified in the City's operations and maintenance budget.

- Golf Course BPS
 - No emergency power available.
 - Access to the facility is via the golf course cart path.
 - Two VFDs are in need of replacement.
- 19th and Olympia BPS
 - No emergency power available.
 - Lighting is inadequate.
 - Heating, ventilating, and air conditioning system is nearing the end of its useful life.

- No hoist within the facility to remove pumps or motors.
 - The motors for Pump Nos. 4 and 5 vibrate at higher than desirable levels, with testing indicating a potential imbalance in the pump/motor system and system resonance due to looseness in the system. Minor indications of vane pass frequency imbalances and turbulence were also present in both pumps.
- 18th and Kellogg BPS
 - Heating, ventilating, and air conditioning system is nearing the end of its useful life.
 - The motor for Pump No. 1 vibrates at higher than desirable levels, primarily due to bearing defects and electrical faults. Indications of turbulence and looseness within the pump and motor system were also measured.
- 47th and Olympia BPS
 - Heating, ventilating, and air conditioning system is a ductless, wall mounted unit.
 - Motor soft starters are nearing the end of their useful life.
 - The motor for Pump No. 2 vibrates at higher than desirable levels, primarily due to bearing defects and electrical faults. Indications of turbulence and looseness within the pump and motor system were also measured.
- 54th and Olympia BPS
 - Heating, ventilating, and air conditioning system is nearing the end of its useful life.
- 28th and Irving BPS
 - Heating, ventilating, and air conditioning system is nearing the end of its useful life.
 - Site security is insufficient; no site fencing exists.
- 46th and Olson BPS
 - Heating, ventilating, and air conditioning system is nearing the end of its useful life.
 - Concerning vibration levels have been measured in all three motors, as well as Pump No. 1. Pump No. 1 and the motors for Pump Nos. 1 and 2 vibrate at levels that are likely causing damage to the motors during operation, and the motor for Pump No. 3 vibrates at higher than desirable levels. A potential imbalance and vane pass frequency imbalance have been measured for Pump No. 1. A potential imbalance and bearing defects have been measured for the Pump No. 1 motor. Potential electrical faults, bearing defects, and imbalances have been measured for the motors of Pump Nos. 2 and 3.
- Thompson Hill BPS
 - Compatible with an emergency generator, but an emergency generator has not been purchased.

SYSTEM STORAGE ANALYSIS

This section evaluates the City's existing water storage facilities to determine if they have sufficient capacity to meet the existing and future storage requirements of the system. This section also identifies facility deficiencies that are unrelated to the capacity of the water reservoirs.

Analysis Criteria

Water storage typically includes the following components: operational storage; equalizing storage; standby storage; fire flow storage; and dead storage. Each storage component serves a different purpose and will vary from system to system. A definition of each storage component used to evaluate the capacity of the City's reservoirs follows.

Operational Storage – Volume of the reservoir represented by the average amount of drawdown during normal operating conditions, which is essentially storage that will most likely not be available for equalizing, fire flow, or standby storage.

Equalizing Storage – Volume of the reservoir used to supply the water system under peak demand conditions when the system demand exceeds the total rate of supply of the sources. DOH requires that equalizing storage be stored above an elevation that will provide a minimum pressure of 30 psi at all connections throughout the system under PHD conditions. DOH requires the minimum equalizing storage volume to be calculated with Equation 9-1 from the DOH *Water System Design Manual*.

Equation 9-1: $ES = (PHD - Q_s)(150 \text{ minutes})$, but in no case less than zero.

Where:

$ES =$ Equalizing Storage, in gallons.

$PHD =$ Peak Hour Demand, in gpm.

$Q_s =$ Sum of all installed and active sources, except emergency supply, in gpm.

In addition to the equalizing storage requirements calculated from Equation 9-1, the City requires that the equalizing storage volume not be less than 15 percent of the MDD. This calculation determines the equalizing storage volume required for the City's system-wide and individual pressure zone operating areas for all existing and future planning periods.

Standby Storage – Volume of the reservoir used to supply the water system under emergency conditions, when supply facilities are out of service due to equipment failures, power outages, loss of supply, or transmission main breaks, and any other situation that disrupts the supply source. The DOH recommends that standby storage be stored above an elevation that will provide a minimum pressure of 20 psi at all service connections throughout the system. Equation 9-3 from the DOH *Water System Design Manual* presents the formula for calculating standby storage.

Equation 9-3: $SB = (2 \text{ days})[(ADD)(N) - t_m (Q_s - Q_L)]$

Where:

$SB =$ Standby Storage, in gallons.

$ADD =$ Average Day Demand per equivalent residential unit (ERU), in gallons per day (gpd) per ERU.

$N =$ Number of ERUs.

$Q_s =$ Sum of all installed and continuously available sources, except emergency supply, in gpm.

$Q_L =$ The capacity of the largest source available to the system, in gpm.

$t_m =$ Time the remaining sources are pumped on the day when the largest source is not available, in minutes. Unless otherwise restricted, this value is 1,440 minutes.

In addition to the standby storage requirements calculated from Equation 9-3, DOH recommends that the minimum standby storage volume be no less than 200 gallons per ERU.

Fire Flow Storage – Volume of the reservoir used to supply water to the system at the maximum rate and duration required to extinguish a fire at a building with the highest fire flow requirement. The magnitude of the fire flow storage is based on the volume of the building being protected, the occupancy hazard, and the construction class. The DOH requires that fire flow storage be stored above an elevation that will provide a minimum pressure of 20 psi at all service connections throughout the system under MDD conditions. The fire flow storage requirements shown in the evaluations that follow are based on a 5,000 gpm fire flow rate and 4-hour duration for the system-wide and all individual pressure zone operating areas, except the Zone 4 evaluation which is based on a 4,000 gpm fire flow rate with a 4-hour duration. In addition, the fire flow and standby storage components were not consolidated, as shown in the storage evaluation tables.

Dead Storage – Volume of the reservoir that cannot be used because it is stored at an elevation that does not provide system pressures that meet the minimum pressure requirements established by the DOH without pumping. This unusable storage occupies the lower portion of most ground-level reservoirs. Water that is stored below an elevation that cannot provide a minimum pressure of 20 psi is considered dead storage for the analyses that follow.

Storage Analysis Results

System-wide Storage

The storage analyses are based on an evaluation of the existing storage facilities providing water to the City's distribution system. The maximum combined storage capacity of the City's reservoirs is 32.94 million gallons (MG), as shown in **Table 3-10**. Operational storage is based on BPS set points provided by the City. Equalizing storage is based on storing 15 percent of the water system's MDD, which is more conservative than the results of Equation 9-1 from the DOH *Water System Design Manual*. Standby storage is based on providing 200 gallons of storage per ERU, which is more conservative than the results of Equation 9-3 from the DOH *Water System Design Manual*. There is currently minimal dead storage (i.e., non-usable storage) in the water system, all of which is located within Zone 4. The results of the existing storage evaluation, as shown in **Table 3-10**, indicate that the system currently has a storage surplus of approximately 12.02 MG.

Table 3-10
Water Storage Capacity Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Available/Usable Storage (MG)					
Maximum Storage Capacity	33.77	33.77	33.77	33.77	33.77
Dead (Non-usable) Storage	0.83	0.83	0.83	0.83	0.83
Total Available Storage	32.94	32.94	32.94	32.94	32.94
Required Storage (MG)					
Operational Storage	7.62	7.62	7.62	7.62	7.62
Equalizing Storage	3.09	3.35	3.55	3.65	4.06
Standby Storage	9.01	9.75	10.33	10.62	11.83
Fire Flow Storage	1.20	1.20	1.20	1.20	1.20
Total Required Storage	20.92	21.91	22.70	23.09	24.72
Surplus or Deficient Storage (MG)					
Surplus or Deficient Amount	12.02	11.02	10.24	9.85	8.22

The system's future storage requirements, also shown in **Table 3-10**, were computed for the 6-, 10-, 12-, and 20-year planning periods, based on the corresponding demand projections shown in **Chapter 2**. The City is projected to have a system-wide storage surplus through the 20-year planning period.

Zone 1 Storage

The City's Zone 1 reservoir, the 19th and Olympia Reservoir, has an existing storage capacity of 6.00 MG, as shown in **Table 3-11**. Operational storage is based on BPS set points provided by the City. Equalizing storage is based on storing 15 percent of the water system's MDD, which is more conservative than the results of Equation 9-1 from the DOH *Water System Design Manual*. Standby storage is based on a rate of 200 gpd per ERU in the system, which is more conservative than the results of Equation 9-3 from the DOH *Water System Design Manual*. There is currently no dead storage (i.e., non-usable storage) in Zone 1. The results of the storage evaluation, as shown in **Table 3-11**, indicate that the Zone 1 storage facilities have sufficient capacity to meet the existing and future storage requirements through the 20-year planning period.

Table 3-11
Zone 1 Storage Capacity Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Available/Usable Storage (MG)					
Maximum Storage Capacity	6.00	6.00	6.00	6.00	6.00
Dead (Non-usable) Storage	0.00	0.00	0.00	0.00	0.00
Total Available Storage	6.00	6.00	6.00	6.00	6.00
Required Storage (MG)					
Operational Storage	1.68	1.68	1.68	1.68	1.68
Equalizing Storage	0.65	0.68	0.70	0.71	0.76
Standby Storage	1.91	1.99	2.05	2.08	2.21
Fire Flow Storage	1.20	1.20	1.20	1.20	1.20
Total Required Storage	5.44	5.55	5.63	5.67	5.84
Surplus or Deficient Storage (MG)					
Surplus or Deficient Amount	0.56	0.45	0.37	0.33	0.16

Zone 2 Storage

The City's Zone 2 reservoirs, the 47th and Olympia Reservoir and the 18th and Kellogg Reservoirs, have a combined existing storage capacity of 15.87 MG, as shown in **Table 3-12**. Operational storage is based on BPS set points provided by the City. Equalizing storage is based on storing 15 percent of the water system's MDD, which is more conservative than the results of Equation 9-1 from the DOH *Water System Design Manual*. Standby storage is based on a rate of 200 gpd per ERU in the system, which is more conservative than the results of Equation 9-3 from the DOH *Water System Design Manual*. There is currently no dead storage (i.e., non-usable storage) in Zone 2. The results of the storage evaluation, as shown in **Table 3-12**, indicate that the Zone 2 storage facilities have sufficient capacity to meet the existing and future storage requirements through the 20-year planning period.

Table 3-12
Zone 2 Storage Capacity Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Available/Usable Storage (MG)					
Maximum Storage Capacity	15.87	15.87	15.87	15.87	15.87
Dead (Non-usable) Storage	0.00	0.00	0.00	0.00	0.00
Total Available Storage	15.87	15.87	15.87	15.87	15.87
Required Storage (MG)					
Operational Storage	3.47	3.47	3.47	3.47	3.47
Equalizing Storage	1.32	1.43	1.53	1.57	1.77
Standby Storage	3.83	4.18	4.45	4.59	5.14
Fire Flow Storage	1.20	1.20	1.20	1.20	1.20
Total Required Storage	9.82	10.28	10.64	10.83	11.58
Surplus or Deficient Storage (MG)					
Surplus or Deficient Amount	6.05	5.59	5.23	5.04	4.29

Zone 3 Storage

The City's Zone 3 reservoirs, the 54th and Olympia Reservoir, the 28th and Irving Reservoir, and the Kansas Reservoir, have a combined existing storage capacity of 6.78 MG, as shown in **Table 3-13**. Operational storage is based on BPS set points provided by the City. Equalizing storage is based on storing 15 percent of the water system's MDD, which is more conservative than the results of Equation 9-1 from the DOH *Water System Design Manual*. Standby storage is based on a rate of 200 gpd per ERU in the system, which is more conservative than the results of Equation 9-3 from the DOH *Water System Design Manual*. There is currently no dead storage (i.e., non-usable storage) in Zone 3. The results of the storage evaluation, as shown in **Table 3-13**, indicate that the Zone 3 storage facilities have sufficient capacity to meet the existing and future storage requirements through the 20-year planning period.

Table 3-13
Zone 3 Storage Capacity Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Available/Usable Storage (MG)					
Maximum Storage Capacity	6.78	6.78	6.78	6.78	6.78
Dead (Non-usable) Storage	0.00	0.00	0.00	0.00	0.00
Total Available Storage	6.78	6.78	6.78	6.78	6.78
Required Storage (MG)					
Operational Storage	1.19	1.19	1.19	1.19	1.19
Equalizing Storage	0.86	0.90	0.93	0.94	1.00
Standby Storage	2.52	2.62	2.70	2.74	2.91
Fire Flow Storage	1.20	1.20	1.20	1.20	1.20
Total Required Storage	5.77	5.91	6.02	6.08	6.31
Surplus or Deficient Storage (MG)					
Surplus or Deficient Amount	1.00	0.86	0.75	0.70	0.47

Zone 4 Storage

The City's Zone 4 reservoirs, the Canyon Lakes Reservoir and the Thompson Hill Reservoir, have a combined existing storage capacity of 4.06 MG, as shown in **Table 3-14**. However, the total amount of usable storage is reduced to 3.23 MG as a result of 0.83 MG of dead storage due to the water services that are located at the highest elevations within the water system or near a storage tank. The highest Zone 4 service elevation is 846 feet, located at an existing hydrant on a dead-end water main in Olympia Street, located immediately south of the City's Zone 5 Reservoir.

Table 3-14
Zone 4 Storage Capacity Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Available/Usable Storage (MG)					
Maximum Storage Capacity	4.06	4.06	4.06	4.06	4.06
Dead (Non-usable) Storage	0.83	0.83	0.83	0.83	0.83
Total Available Storage	3.23	3.23	3.23	3.23	3.23
Required Storage (MG)					
Operational Storage	1.08	1.08	1.08	1.08	1.08
Equalizing Storage	0.20	0.24	0.26	0.27	0.33
Standby Storage	0.59	0.70	0.76	0.80	0.96
Fire Flow Storage	0.96	0.96	0.96	0.96	0.96
Total Required Storage	2.83	2.97	3.05	3.11	3.33
Surplus or Deficient Storage (MG)					
Surplus or Deficient Amount	0.40	0.26	0.18	0.12	(0.10)

Operational storage in the Zone 4 reservoirs is based on BPS set points provided by the City. Equalizing storage is based on storing 15 percent of the water system's MDD, which is more conservative than the results of Equation 9-1 from the DOH *Water System Design Manual*. Standby storage is based on a rate of 200 gpd per ERU in the system, which is more conservative than the results of Equation 9-3 from the DOH *Water System Design Manual*. The results of the storage evaluation, as shown in **Table 3-14**, indicate that the Zone 4 storage facilities have sufficient capacity to meet the existing and future storage requirements through the 12-year planning period, but not through the 20-year planning period based on the City's storage requirement criteria, which are more stringent than DOH's minimum criteria. The existing storage facilities have sufficient capacity to meet the DOH minimum storage requirements in the 20-year planning period, as the 0.33 MG of equalizing storage presented in **Table 3-14** is not required by DOH. The City will continue to evaluate the applicability of the Zone 4 storage requirements as growth occurs throughout the water system; improvements to resolve the slight 20-year storage deficiency are presented in **Chapter 8**.

Zone 5 Storage

The City's Zone 5 Reservoir has an existing storage capacity of 1.06 MG, as shown in **Table 3-15**. Operational storage in the Zone 5 reservoir is based on BPS set points provided by the City. Equalizing storage is based on storing 15 percent of the water system's MDD, which is more conservative than the results of Equation 9-1 from the DOH *Water System Design Manual*. Standby storage is based on Equation 9-3 from the DOH *Water System Design Manual* for the existing storage evaluation; the future standby storage is based on a rate of 200 gpd per ERU in the system as a result of the City's Thompson Hill BPS being connected to the Zone 5 distribution system in 2017. There is currently no dead storage (i.e., non-usable storage) in Zone 5. The results of the storage evaluation, as shown in **Table 3-15**, indicate that the Zone 5 storage facilities do not have sufficient capacity to meet typical storage requirements. However, the City has sized the Zone 5 pumping facilities to meet the Zone 5 fire flow requirements, with the pumping facilities having capacity to meet the PHD and maximum fire flow requirements of Zone 5 through the 20-year planning period once the City's Thompson Hill BPS is connected to the Zone 5 distribution system, as shown in **Table 3-16**. Therefore, the 0.96 MG of Zone 4 fire flow storage was assumed to be available to Zone 5 during an emergency event, resulting in a slight storage surplus projected for the City's 20-year planning period, as shown at the bottom of **Table 3-15**. Improvements to evaluate and construct additional Zone 5 storage to improve operational flexibility are presented in **Chapter 8**.

Table 3-15
Zone 5 Storage Capacity Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Available/Usable Storage (MG)					
Maximum Storage Capacity	1.06	1.06	1.06	1.06	1.06
Dead (Non-usable) Storage	0.00	0.00	0.00	0.00	0.00
Total Available Storage	1.06	1.06	1.06	1.06	1.06
Required Storage (MG)					
Operational Storage	0.20	0.20	0.20	0.20	0.20
Equalizing Storage	0.05	0.08	0.10	0.11	0.16
Standby Storage	0.37	0.24	0.28	0.32	0.45
Fire Flow Storage	1.20	1.20	1.20	1.20	1.20
Total Required Storage	1.83	1.72	1.78	1.83	2.01
Surplus or Deficient Storage (MG)					
Surplus or Deficient Amount	(0.77)	(0.66)	(0.73)	(0.77)	(0.95)
Adjusted Surplus or Deficient Amount (MG)					
Fire Flow Storage From Zone 4	0.96	0.96	0.96	0.96	0.96
Adjusted Surplus or Deficient Amount	0.19	0.30	0.23	0.19	0.01

Table 3-16
Zone 5 PHD and Fire Flow Supply Evaluation

Description	Existing	Future Projections			
	2015	2021 (+6 years)	2025 (+10 years)	2027 (+12 years)	2035 (+20 years)
Required Supply (gpm)					
Zone 5 PHD	374	578	691	774	1,104
Other Zones PHD	0	77	230	261	384
Zone 5 Maximum Fire Flow	5,000	5,000	5,000	5,000	5,000
Total Required Supply	5,374	5,655	5,922	6,035	6,488
Available Supply (gpm)					
46th and Olson BPS	2,555	2,555	2,555	2,555	2,555
Thompson Hill BPS	---	5,300	5,300	5,300	5,300
Total Available Supply	2,555	7,855	7,855	7,855	7,855
Surplus or Deficient Supply (gpm)					
Surplus or Deficient Amount	(2,819)	2,200	1,933	1,820	1,367

Storage Facility Deficiencies

A summary of the deficiencies at the City's reservoir facilities is as follows. Improvements to resolve these deficiencies are identified in the City's operations and maintenance budget.

- 19th and Olympia Reservoir
 - The reservoir is divided into east and west portions that are hydraulically isolated from each other.
 - The reservoir floor has cracks, and rebar was visible in places during a 2016 reservoir cleaning. The reservoir floor has a history of root intrusion.
- 18th and Kellogg (10 MG) Reservoir
 - Peterson Structural Engineers, Inc., (Peterson) performed a visual condition assessment and structural evaluation of the reservoir in 2014, and found significant defects and vulnerabilities. Improvements to resolve these deficiencies are contained in Peterson's report. A summary of the defects and vulnerabilities noted by Peterson include:
 - Moderate deterioration of the reservoir exterior wall surface;
 - Shrinkage cracking around the reservoir;
 - Areas of efflorescence and stains from roof leakage;
 - Roof slab deflection of as much as 4 inches, particularly at exterior spans;
 - Roof slab cracking;
 - Corrosion of overflow pipe, floor drain, and other internal steel appurtenances;
 - Slab reinforcing was measured to have strength deficiencies at 21 of the 24 tested locations;
 - Post-installed anchors are inadequate to resist the reservoir's seismic loads; and
 - Bearing pad thickness is inadequate.
- 28th and Irving Reservoir
 - Site security is insufficient; no site fencing exists.
- Kansas Reservoir
 - Reservoir mixing is inadequate.
- Canyon Lakes Reservoir
 - Reservoir roof exterior is exhibiting signs of pitting and cracking.
- Zone 5 Reservoir
 - Site access road is gravel and steep, and can be difficult to access in small vehicles.

DISTRIBUTION AND TRANSMISSION SYSTEM ANALYSIS

This section evaluates the City's existing distribution and transmission system (i.e., water mains) to determine if they are sized and looped adequately to provide the necessary flow rates and pressures to meet the existing and future requirements of the system. This section also identifies deficiencies that are unrelated to the capacity of the water mains.

Analysis Criteria

Distribution and transmission water mains must be capable of adequately and reliably conveying water throughout the system at acceptable flow rates and pressures. The criteria used to evaluate the City's distribution and transmission system are the state mandated requirements for Group A water systems contained in WAC 246-290-230, Distribution Systems. The pressure analysis criteria state that the distribution system "...shall be designed with the capacity to deliver the design PHD quantity of water at 30 psi under PHD flow conditions measured at all existing and proposed service water meters." It also states that if fire flow is to be provided, "... the distribution system shall also provide maximum day demand (MDD) plus the required fire flow at a pressure of at least 20 psi at all points throughout the distribution system."

Hydraulic analyses of the existing system were performed under existing PHD conditions to evaluate the current pressure capabilities and identify existing system deficiencies. The existing system was also analyzed under existing MDD conditions to evaluate the current fire flow capabilities and identify additional existing system deficiencies. Additional hydraulic analyses were then performed with the same hydraulic model under future MDD conditions and with proposed improvements to demonstrate that the identified improvements will eliminate the deficiencies and meet the requirements far into the future. The following is a description of the hydraulic model and the operational conditions and facility settings used in the analyses.

Hydraulic Model

Description

A computer-based hydraulic model of the existing water system was created using version 8i (SELECTseries 6) of the WaterGEMS® program, developed by Bentley Systems. All facilities and water mains in the City's water system, including dead-end mains, were modeled. The water mains were entered from the City's Geographical Information System (GIS) water system database and as-built records. The model was updated with additional water system improvement information provided by the City. The junction node elevation data were electronically extracted from Benton County topographic data. A hydraulic model node diagram that provides a graphical representation of the model of the water system is contained in **Appendix E**.

Demand Data

The hydraulic model of the existing system contains 2015 average day demand (ADD) data. Consumption data from 2014 metered billing records were distributed based on the recorded usage for each parcel to the closest representative junction node of the model, which was then uniformly scaled to match the 2015 supply data. The peaking factors calculated in **Chapter 2** were used to analyze the system under PHD and MDD conditions.

The hydraulic model of the proposed system contains 6-year, 10-year, 12-year, and 20-year demand levels that are projected for the years 2021, 2025, 2027, and 2035, respectively. The City's future demand distribution was based on a large concentration of growth occurring within Zone 2's commercial and industrial areas in and around Vista Field, approximately located west of N. Kellogg Street and north of W. Clearwater Avenue. Large concentrations of growth are also anticipated to occur in the predominantly low density residential area in the south and southwest portion of the City limits, broadly referred to as the Southridge area, which is currently within Zones 4 and 5, and within future Zones 6 and 7 located south of the existing City limits but within the City's retail water service area. The future ADD allocations in each pressure zone are shown in **Table 3-17**.

Table 3-17
Future Pressure Zone Demand Allocation

Pressure Zone	ADD (gpm)				
	Existing	2021	2025	2027	2035
Zone 1	1,616	1,683	1,735	1,762	1,870
Zone 1 (from Zone 2 PRVs)	122	127	131	133	141
Zone 2	3,127	3,413	3,639	3,754	4,218
Zone 3	2,132	2,220	2,289	2,325	2,467
Zone 4	503	589	641	676	815
Zone 5	130	201	240	269	383
Zone 6	0	27	53	59	80
Zone 7	0	0	27	32	53
Total	7,630	8,259	8,754	9,009	10,028

Facilities

The hydraulic model of the existing system for the pressure analysis contains active, existing system facilities. For the proposed system analyses in the years 2021, 2025, and 2035, the hydraulic model contained active, existing system facilities and proposed system improvements identified in **Chapter 8** for the 6-year, 10-year, 12-year, and 20-year planning periods, respectively.

The facility settings for the pressure analyses correspond to a PHD event in the water system. All sources of supply that are currently available to the system, or will be available in the future for the years 2021, 2025, 2027, and 2035 analyses, were operating at their normal summertime pumping rates during a peak period. The reservoir levels were modeled to reflect full utilization of operational and equalization storage. All active PRVs were modeled as being in service and at their normal set points, which are shown in **Appendix F**. The operational conditions for the pressure analyses are summarized in **Table 3-18**.

Table 3-18
Hydraulic Analyses Operational Conditions

Description	PHD Pressure Analyses					Fire Flow Analyses				
	2015	2021 (+6 yrs)	2025 (+10 yrs)	2027 (+12 yrs)	2035 (+20 yrs)	2015	2021 (+6 yrs)	2025 (+10 yrs)	2027 (+12 yrs)	2035 (+20 yrs)
Demand	2015 PHD	2021 PHD	2025 PHD	2027 PHD	2035 PHD	2015 MDD	2021 MDD	2025 MDD	2027 MDD	2035 MDD
Storage Facilities HGL (feet)										
WTP Clearwell	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0
19th and Olympia E.	526.2	526.1	526.0	526.0	525.9	523.2	523.1	523.0	523.0	522.9
19th and Olympia W.	526.2	526.1	526.0	526.0	525.9	523.2	523.1	523.0	523.0	522.9
47th and Olympia	643.6	643.4	643.2	643.2	642.8	641.5	641.2	641.1	641.0	640.6
18th and Kellogg	644.2	644.0	643.8	643.8	643.4	642.1	641.8	641.7	641.6	641.2
18th and Kellogg	644.2	644.0	643.8	643.8	643.4	642.1	641.8	641.7	641.6	641.2
54th and Olympia	772.3	772.1	772.0	771.9	771.7	767.3	767.2	767.1	767.0	766.8
28th and Irving	771.4	771.2	771.1	771.0	770.8	766.4	766.3	766.2	766.1	765.9
Kansas	771.4	771.2	771.1	771.0	770.8	766.4	766.3	766.2	766.1	765.9
Canyon Lakes	904.6	904.4	904.3	904.2	903.9	899.0	898.8	898.6	898.6	898.2
Thompson Hill	904.6	904.4	904.3	904.2	903.9	899.0	898.8	898.6	898.6	898.2
Zone 5 Reservoir	1,040.0	1,039.4	1,039.1	1,038.8	1,037.9	1,024.0	1,024.0	1,024.0	1,024.0	1,024.0
Pumping Facilities Status										
Ranney Wells No. 4	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Ranney Wells No. 5	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Water Treatment Plant BPS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
ASR Well	---	---	ON	ON	ON	---	---	ON	ON	ON
Golf Course BPS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
19th and Olympia BPS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
47th and Olympia BPS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
18th and Kellogg BPS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
54th and Olympia BPS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
28th and Irving BPS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Thompson Hill BPS	OFF	ON	ON	ON	ON	OFF	ON	ON	ON	ON
46th and Olson BPS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Zone 6 BPS	OFF	ON	ON	ON	ON	OFF	ON	ON	ON	ON
Pressure Reducing Valves Hydraulic Grade Level (HGL) Setpoint (feet)¹										
Proposed Deschutes and Colorado Zone 3 to 2 PRV (CIP VF1)	---	634	634	634	634	---	634	634	634	634
Proposed Columbia Center Blvd and Grandridge Zone 3 to 2 PRV (CIP VF1)	---	615	615	615	615	---	615	615	615	615
Proposed Oklahoma Place Zone 3 to 2 PRV (CIP VF1)	---	623	623	623	623	---	623	623	623	623
Proposed Olympia Street Zone 4 PRV (CIP PZ3)	---	---	---	---	905	---	---	---	---	905
Proposed Kellogg and 4th Ave Zone 3 to 2 PRV (CIP PRV1)	---	---	630	630	630	---	---	630	630	630
Proposed Steptoe and Gage Zone 3 to 2 PRV (CIP PRV1)	---	---	630	630	630	---	---	630	630	630
Proposed 27th Ave and Creekstone Zone 4 to Zone 3 PRV (CIP PRV3)	---	---	745	745	745	---	---	745	745	745
Proposed Canyon Lakes Drive Zone 4 to Zone 3 PRV (CIP PRV3)	---	---	754	754	754	---	---	754	754	754
Proposed 52nd Ave and Olympia Zone 4 to Zone 3 PRV (CIP PRV3)	---	---	744	744	744	---	---	744	744	744
Proposed Zone 4 PRV in Southwest of Water System (CIP DF4)	---	---	---	---	895	---	---	---	---	895
Proposed Zone 3 PRV in Southwest of Water System (CIP DF5)	---	---	---	---	760	---	---	---	---	760
Proposed Olympia Street Zone 6 to Zone 5 PRV (CIP DF8)	---	---	---	---	1,030	---	---	---	---	1,030
Intertie Status										
Richland - Gage Blvd	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Richland - Tapteal Drive	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
KID - Elliot Lake	ON	Acquired by City				ON	Acquired by City			

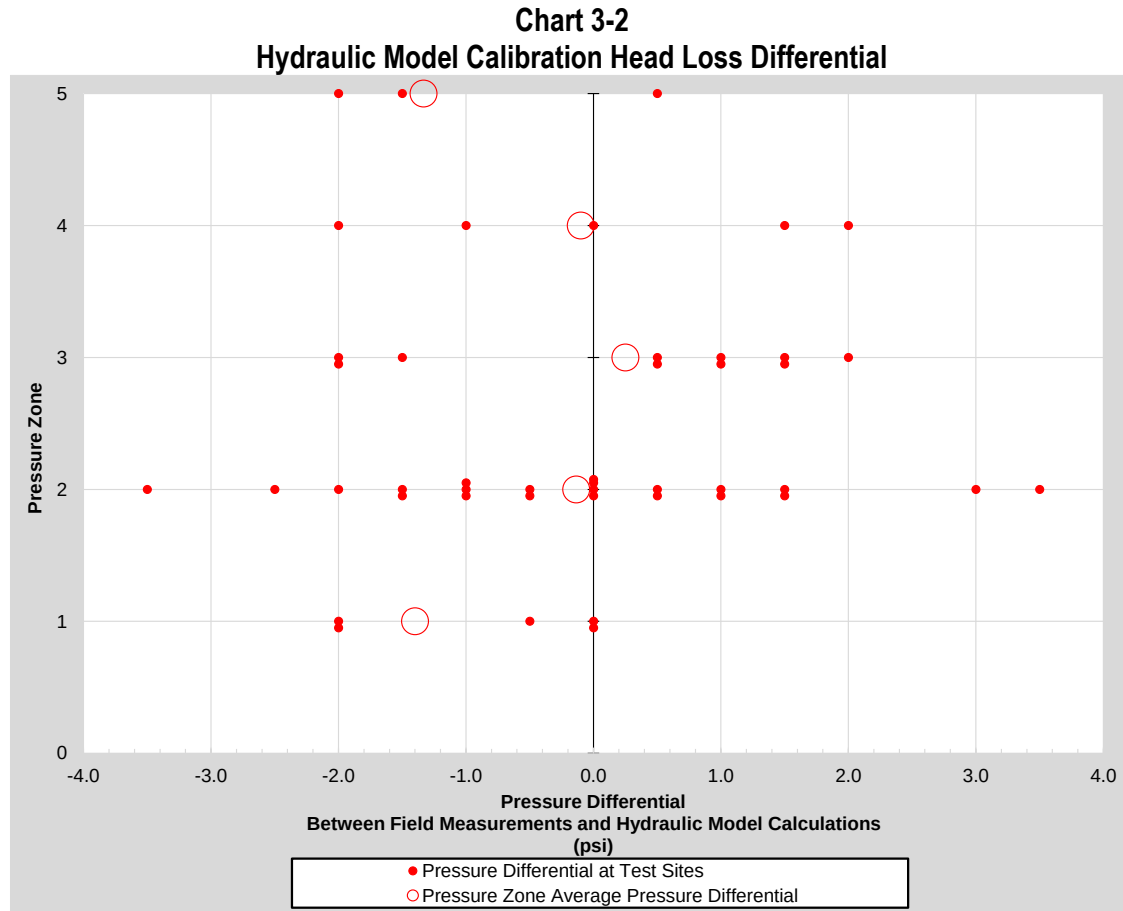
(1) All existing PRVs not specifically shown in this table were operated at the pressure setpoints provided by the City in late 2015. A copy of these PRV setpoints is shown in **Appendix F**.

Separate fire flow analyses were performed on the system to size distribution system improvements and calculate fire flow availability. The hydraulic model for the fire flow analyses contained settings that correspond to MDD events. All sources of supply that are currently available to the system during a peak period were operating at their normal pumping rates with the largest pump at each facility offline. Reservoir levels were modeled to reflect full utilization of operational, equalizing, and fire flow storage based on the maximum planning-level fire flow requirement. Each pressure zone was modeled with the largest pump off during the fire flow analyses, consistent with WAC 246-293-660. **Table 3-18** summarizes the operational conditions for the fire flow analyses for the existing and future systems.

Calibration

Hydraulic model calibration is the process of adjusting hydraulic model data so the model closely reflects actual system pressures and flows under similar demand and operating conditions. Initial Darcy-Weisbach roughness coefficients were entered into the model based on computed estimates of the coefficients from available pipe age and material data. For example, assuming that the internal surface of water pipes becomes rougher as it ages, older water mains were assigned higher roughness coefficients than newer water mains. In addition, internal pipe diameters were entered in the model based on nominal pipe diameter and material data.

The City performed hydrant flow tests at 45 locations in late 2015 and early 2016, measuring hydrant flows, and static and residual pressures during the tests for use in calibrating the hydraulic model. Telemetry data for all of the City's water system facilities were provided in 1-minute intervals during the tests, and were used to initialize the settings of the facilities in the hydraulic model. Pressure transducers recording at 2-second intervals were installed in at least two locations in each pressure zone during the flow tests to verify the static and residual pressures at intermediate points in the system (between the water system facilities and the hydrant flow test locations). Hydraulic model calibration of the 45 locations was achieved by adjusting the roughness coefficients of the water mains and elevations of the junction nodes in the model until the model results reflected an acceptable level of accuracy. The hydraulic model's calculated head loss during the flow tests was within plus or minus 3.5 psi of the field-measured head loss at all 45 hydrants that were flow tested, and within 2 psi at 41 of the 45 hydrants. The accuracy of the calibrated hydraulic model exceeds the guidelines identified by the Engineering Computer Application Committee (ECAC) in 1999, which is a recommended standard in the DOH *Water System Design Manual*. **Chart 3-2** shows the pressure differential between the hydraulic model's calculated head loss and the field-measured head loss at all 45 hydrants, with the results shown for each individual pressure zone.



Hydraulic Analyses Results

Several hydraulic analyses were performed to determine the capability of the system to meet the pressure and flow requirements identified in **Chapter 7** and contained in WAC 246-290-230. The first set of analysis was performed to determine the pressures throughout the system under existing (i.e., 2015) PHD conditions. Subsequent analyses were performed to determine the pressures throughout the system under future 6-, 10-, 12-, and 20-year PHD conditions. The results of these analyses were used to identify locations of low and high pressures. To satisfy the minimum pressure requirements, the pressure at all water service locations must be at least 30 psi during these demand conditions. In addition, the system should not have widespread areas with high pressures, generally considered to be more than 100 psi.

A summary of the pressure deficiencies identified from the results of the analyses is contained in **Table 3-19**. Multiple pressure zones have areas with both low and high pressures during existing PHD conditions. Pressure zone improvements have been proposed for low pressure areas identified in **Table 3-19**. All water mains with pressures greater than 100 psi, as identified from the analyses, were generally located along pressure zone boundaries. Water services in these areas, as with any future services, are required to be equipped with pressure regulators to limit the maximum pressure to 80 psi.

Table 3-19
Pressure Analysis Summary

Land Use	Approximate Location	Existing Pressure Zone	Node Number	CIP Number	Pressure (psi)				
					Existing System	6-year w/ Imp. ¹	10-year w/ Imp. ¹	12-year w/ Imp. ¹	20-year w/ Imp. ¹
Low Pressure Areas									
Low Density Residential	Near intersection of W 19th Ave and S Jean St	Zone 1	J-7825	PZ1	26	81	81	81	81
Low Density Residential	Neighborhood near the intersection of N Nevada Street and W Metaline Ave	Zone 2	J-5833	VF1	21	31	31	35	34
Commercial	Along and north of W Deschutes Avenue, in N Colorado St and N Young St	Zone 2	J-7670	VF1	22	33	32	33	33
Low Density Residential	Dead end main south of W 1st Ave, in S Quay St and S Penn St	Zone 2	J-5773	VF1 PRV1	22	30	30	31	31
Low Density Residential	Near intersection of W 1st Ave and S Kellogg St	Zone 2	J-11719	VF1 PRV1	28	36	36	36	36
Low Density Residential	Dead end main south of W 4th Ave, in S Harrison St	Zone 2	J-5779	VF1 PRV1	27	32	31	31	32
Commercial	Near intersection of N Center Pkwy and W Grandridge Blvd	Zone 2	J-10987	VF1	27	38	38	39	40
High Pressure Areas									
Low Density Residential	W 7th Pl cul-de-sac	Zone 2	J-3328	---	85	102	101	101	101
Low Density Residential	Near intersection of W 19th Ave and S Garfield St	Zone 2	J-3281	---	105	107	106	106	106
Low Density Residential	Transmission main through Canyon Lakes Golf Course (no services)	Zone 4	J-5770	---	131	131	135	135	135
Open Space	Near intersection of Hildebrand Blvd and W Canyon Lakes Dr	Zone 4	J-5182	---	109	109	111	111	111
Low Density Residential	W 36th Ave within Canyon Lakes development	Zone 4	J-5094	---	103	103	106	106	106
Low Density Residential	North end of S Green St within Canyon Lakes development	Zone 4	J-3347	---	96	96	101	101	101
Low Density Residential	Along W 49th St	Zone 4	J-4535	---	93	93	107	107	106
Low Density Residential	Along W 51st Ave	Zone 4	J-3802	---	88	88	103	103	102
Low Density Residential	S Sherman St, just north of intersection with Hildebrand Blvd	Zone 5	J-13287	---	134	156	155	155	154
Commercial	Transmission main under State Highway 395 (no services)	Zone 5	J-265	---	108	120	118	118	117

(1) Imp. = Improvements

Hydraulic analyses were also performed to determine the ability of the existing water system to withstand extreme peak demand conditions. These conditions may occur during a drought if Kennewick Irrigation District's supply availability is limited and the City's water system is used to supply additional irrigation demands. The City's existing sources have capacity to meet demands that are approximately 15 percent greater than the existing MDD, which was assumed to be representative of drought demand conditions for the purposes of these analyses. The results of the analyses, which were performed with existing MDD and PHD peaked by 15 percent, indicate that pressures decrease by up to 5 psi at all locations throughout the system. Results of the drought analyses in existing low pressure areas are presented in **Table 3-20**, and are based on the assumption that the City's reservoirs are drawn down through the operational and equalizing storage components. In Zone 1, there are two junctions with pressures below 30 psi during existing PHD conditions, and these two junctions are the only two junctions below 30 psi with the increased demands. In Zone 2, there are 75 junctions with pressures below 30 psi based on the existing PHD, the majority of which are located along the boundary with Zone 3 in the western portion of the pressure zone. With the PHD increased by 15 percent, 114 junctions in Zone 2 are projected to have pressures below 30 psi. Based on these results, it is recommended that the City complete

capital improvement program numbers VF1 and PRV1, as presented in **Chapter 8**, to improve pressures in Zones 1 and 2 during existing peak demands and during increased demand (i.e., drought) conditions.

Table 3-20
Extreme Peak Demand Pressure Analysis Summary

Land Use	Approximate Location	Existing Pressure Zone	Node Number	Pressure (psi)			
				MDD		PHD	
				Existing	Existing MDD + 15%	PHD	Existing PHD + 15%
Low Density Residential	Near intersection of W 19th Ave and S Jean St	Zone 1	J-7825	27	27	26	26
Low Density Residential	Neighborhood near the intersection of N Nevada Street and W Metaline Ave	Zone 2	J-5833	34	31	21	16
Commercial	Along and north of W Deschutes Avenue, in N Colorado St and N Young St	Zone 2	J-7670	33	31	22	19
Low Density Residential	Dead end main south of W 1st Ave, in S Quay St and S Penn St	Zone 2	J-5773	32	30	22	20
Low Density Residential	Near intersection of W 1st Ave and S Kellogg St	Zone 2	J-11719	37	35	28	26
Low Density Residential	Dead end main south of W 4th Ave, in S Harrison St	Zone 2	J-5779	33	32	27	27
Commercial	Near intersection of N Center Pkwy and W Grandridge Blvd	Zone 2	J-10987	40	37	27	22

Analyses were also performed to determine the capability of the existing water system to provide fire flow under MDD conditions. A separate fire flow analysis was performed for each node in the model to determine the available fire flow at a minimum residual pressure of 20 psi and a maximum velocity of 10 fps in the pipes in the water model. More than 8,400 individual fire flow analyses were performed to comprehensively evaluate the water system. For each node analyzed, the resulting fire flow was compared to its planning-level fire flow requirement, which was assigned according to the land use classifications shown in **Table 3-1**. A summary of the results of the analyses is presented in **Table 3-21**.

Table 3-21
Fire Flow Analysis Summary

Land Use	Approximate Location	Existing Pressure Zone	Node Number	Available Fire Flow (gpm)					Target Fire Flow (gpm)
				Existing System	6-year w/ Imp. ¹	10-year w/ Imp. ¹	12-year w/ Imp. ¹	20-year w/ Imp. ¹	
Commercial	Clover Island Inn, east end of Clover Island Dr	Zone 1	J-10689	814	813	812	812	807	4,000
Industrial	Near intersection of 3rd Ave and Oak St	Zone 1	J-7117	6,000	6,000	6,000	6,000	6,000	5,000
High Density Residential	Heatherstone Apartments loop, north of 10th Ave	Zone 1	J-1217	2,549	2,543	2,538	2,534	2,520	3,000
Commercial	Near intersection of Kennewick Ave and Olympia St	Zone 1	J-10442	6,000	6,000	6,000	6,000	6,000	4,000
Commercial	Safeway, near intersection of Kennewick Ave and Highway 395	Zone 2	J-11520	6,000	6,000	6,000	6,000	6,000	4,000
Commercial	Fred Meyer loop, west of Highway 395	Zone 2	J-6320	2,429	4,355	4,337	4,331	4,269	4,000
Commercial	Yokes, near intersection of 27th Ave and Olympia Street	Zone 2	J-12136	4,024	4,013	4,009	4,007	4,246	4,000
Commercial	Near intersection of Kellogg St and Clearwater Ave	Zone 2	J-600	2,071	5,732	5,672	5,715	5,700	4,000
Commercial	Near intersection of Gage Blvd and Steptoe St	Zone 2	J-12797	1,290	2,523	3,173	3,166	6,000	4,000
Commercial	Near intersection of Columbia Center Blvd and Quinault Ave	Zone 2	J-1202	1,596	3,851	3,845	3,847	6,000	4,000
Low Density Residential	Gum St, at Elliot Lake water system intertie	Zone 2	J-4616	730	1,441	1,441	1,441	1,441	1,000
Commercial	Convention Center and Toyota Area	Zone 2	J-12516	1,669	5,843	5,839	5,834	5,870	4,000
Commercial	SW corner of Vista Field, in Young St	Zone 2	J-7670	1,190	4,932	4,945	5,004	4,989	4,000
Industrial	SE corner of Vista Field, near intersection of Okanogan Ave and Hood Pl	Zone 2	J-8494	2,132	6,000	6,000	6,000	5,493	5,000
Commercial	NE corner of Vista Field, in Kellogg St	Zone 2	J-9811	2,056	3,916	3,934	3,965	4,114	4,000
Public Facility	NW corner of Vista Field, in Okanogan Pl	Zone 2	J-12623	1,676	2,157	2,144	2,144	2,150	4,000
Industrial	SE corner of Vista Field, near intersection of Deschutes Ave and Quay St	Zone 3	J-3383	2,773	2,692	2,662	2,637	6,000	5,000
Low Density Residential	Near intersection of 45th Ave and Olympia St	Zone 3	J-12804	3,201	3,194	3,191	3,190	3,185	1,000
Commercial	Near intersection of Ely St and 27th Ave	Zone 3	J-8767	3,121	2,922	4,503	4,507	4,484	4,000
Commercial	Home Depot loop, north of 27th Ave	Zone 3	J-7083	1,903	1,851	2,080	2,072	2,169	4,000
Commercial	La Quinta Inn, Quillan Pl	Zone 3	J-1408	2,170	2,078	2,423	2,421	2,420	4,000
Industrial	SE corner of Vista Field, near intersection of Deschutes Ave and Quay St	Zone 3	J-3383	2,773	2,692	2,662	2,637	6,000	5,000
Commercial	Near intersection of Columbia Center Blvd and Clearwater Ave	Zone 3	J-2531	6,000	5,804	5,741	5,583	5,714	4,000
Commercial	Near intersection of Clearwater Ave, Leslie Rd, Badger Rd, and Ridgeline Dr	Zone 3	J-80	3,083	2,910	2,827	2,771	6,000	4,000
High Density Residential	Copper Ridge Apartments loop, south of Hildebrand Blvd	Zone 4	J-5151	2,947	2,941	2,932	2,932	2,924	3,000
High Density Residential	Near intersection of Southridge Blvd and Hildebrand Blvd	Zone 4	J-1788	3,999	4,419	6,000	6,000	6,000	3,000
Commercial	Near intersection of Southridge Blvd and Ridgeline Dr	Zone 4	J-13275	3,562	3,938	3,781	3,777	3,763	4,000
Low Density Residential	Near intersection of Ridgeline Dr and Lincoln St	Zone 4	J-3870	3,130	3,817	5,540	5,530	5,762	1,000
Commercial	Trios Southridge Hospital, along Plaza Way	Zone 4	J-4950	3,512	3,689	4,332	4,331	4,300	4,000
Commercial	Bob's Burgers and Brew, near intersection of Highway 395 and Hildebrand Blvd	Zone 4	J-1536	2,301	2,299	2,295	2,294	2,273	4,000
Commercial	Hapo Credit Union, near intersection of Highway 395 and Hildebrand Blvd	Zone 4	J-817	1,271	2,808	2,798	2,799	2,788	4,000
Low Density Residential	Near intersection of Hildebrand Blvd and Sherman St	Zone 4	J-1796	3,019	3,174	4,943	4,936	6,000	1,000
Low Density Residential	Near intersection of Hildebrand Blvd and Sherman St	Zone 5	J-13288	2,613	6,000	6,000	6,000	6,000	1,000
Low Density Residential	Near intersection of 46th Ave and Olson St	Zone 5	J-7823	1,719	1,767	1,763	1,762	1,759	1,000
Commercial	Near intersection of Southridge Blvd and 41st Ave	Zone 5	J-13285	3,008	6,000	6,000	6,000	6,000	4,000

(1) Imp. = Improvements

Public facility land uses typically have the largest variation in fire flow requirements, as the land use includes high fire flow properties such as schools or community centers, as well as low fire flow properties such as parks and athletic fields. The fire flow analysis results for all nodes located within or adjacent to each of the City's public facility land uses are presented in **Table 3-22**. Many of the public facilities are represented by multiple nodes in the hydraulic model, and the lesser of the average and median fire flow availabilities for each property is shown in **Table 3-22**. It is recommended the City confirm the actual fire flow requirement at each public facility with the City's Fire Marshal, and identify locations with fire flow deficiencies. Hydraulic analyses can identify the improvements necessary to meet the actual fire flow requirement at these facilities.

Table 3-22
Public Facility Land Use Fire Flow Analysis Summary

Location	Existing Pressure Zone	Available Fire Flow (gpm)				
		Existing System	6-year w/ Improvements	10-year w/ Improvements	12-year w/ Improvements	20-year w/ Improvements
City Government Office	Zone 1	3,496	3,488	3,479	3,470	4,761
Civic Center Park and Police Department	Zone 1	3,144	3,129	3,122	3,116	5,221
Eastgate Elementary	Zone 1	5,430	5,408	5,386	5,366	5,660
Eastgate Park	Zone 1	5,726	5,703	5,680	5,659	6,000
Fairgrounds	Zone 1	1,891	1,889	1,889	1,889	3,330
Kennewick High School	Zone 1	2,031	2,026	2,026	2,026	4,864
Kennewick High School Parking Lot	Zone 1	2,397	2,388	2,388	2,388	6,000
Kennewick High School Track	Zone 1	3,773	3,765	3,764	3,762	5,884
Kennewick School District Offices	Zone 1	1,865	1,864	1,863	1,862	6,000
Park Middle School	Zone 1	2,277	2,284	2,286	2,288	3,841
Trios Women's and Children's Hospital	Zone 1	2,509	2,504	2,502	2,501	2,891
Vista Elementary	Zone 1	65	1,294	1,308	1,308	1,312
Benton County Jail, Court, and Assessor Office	Zone 2	1,626	2,540	2,533	2,533	2,573
Benton County Justice Center	Zone 2	2,301	3,740	3,740	3,740	3,736
Benton County Road Department	Zone 2	5,608	5,212	4,730	4,626	4,879
Benton PUD	Zone 2	3,223	3,222	3,222	3,222	3,212
Canyon View Elementary	Zone 2	3,472	3,469	3,469	3,469	5,103
Cascade Elementary School	Zone 2	1,440	1,427	1,438	1,436	1,440
Edison Elementary	Zone 2	2,206	2,159	2,158	2,156	2,141
Hawthorne Elementary	Zone 2	1,983	1,982	1,982	1,981	2,621
Kamiakin High School	Zone 2	2,870	3,355	3,346	3,341	3,346
Tri Tech Campus	Zone 2	2,099	2,629	2,627	2,625	2,623
Westgate Elementary	Zone 2	2,598	2,726	2,722	2,720	2,720
Cascade Elementary School	Zone 3	1,508	1,492	1,508	1,504	1,510
Desert Hills Middle School	Zone 3	3,185	3,180	3,185	3,187	3,177
Horse Heaven Hills Middle School	Zone 3	3,377	3,239	3,839	3,819	3,911
Lincoln Elementary School	Zone 3	1,567	1,566	1,565	1,565	1,565
Ridge View Elementary	Zone 3	2,790	2,794	2,798	2,799	2,782
Southgate Elementary	Zone 3	2,794	2,748	2,792	2,792	2,794
Sunset View Elementary	Zone 3	2,669	2,649	2,534	2,533	2,998
Southridge High School	Zone 4	3,024	3,338	4,312	4,312	4,311

Once the existing system deficiencies were identified, proposed water main improvements were included in the model, and pressure and fire flow analyses were performed throughout the system to demonstrate that the improvements will eliminate the deficiencies and meet the flow and pressure requirements. Pressure analyses were performed under the projected 2021, 2025, and 2035 PHD conditions and the results are provided in **Table 3-19**. Fire flow analyses were modeled under the projected 2021, 2025, 2027, and 2035 MDD conditions to ensure that the proposed improvements are sized sufficiently to meet future needs. Improvements were not evaluated for existing dead-end water main unless a future water main extension is anticipated as part of future growth. Improvements also were not evaluated for existing looped water main on private property, which typically occurs around commercial, industrial, and school buildings. It was assumed that these loops have been properly sized to meet the actual fire flow requirements of the buildings, which better represent the actual fire flow requirements than the planning-level requirements presented in **Table**

3-1. The fire flow availability of select commercial and industrial customers with on-site water main loops are presented in **Table 3-21** and the fire flow availability of all public facilities, including schools, are presented in **Table 3-22**.

The proposed 2021 improvements were selected to resolve existing pressure deficiencies in the water system, as shown in **Table 3-19**, and increase the fire flow availability in the western portion of Zone 2. The 2025 and 2027 improvements were selected to resolve high priority water main replacement projects, as presented in **Chapter 8**. The 2035 improvements were selected to resolve all non-public facility or private property looped fire flow deficiencies, as shown in **Table 3-21**. The results of the analyses indicate that some of the fire flow deficiencies are resolved with the proposed improvements by 2035. A description of these improvements and figures showing their locations are presented in **Chapter 8**.

Additional analyses were performed to determine the improvements necessary to increase the fire flow availability throughout Vista Field to meet the existing 4,000 gpm commercial and 5,000 gpm industrial planning-level fire flow requirements. The analyses were performed with the system's 2015 MDD, and without any additional improvements taking place in the water system. The proposed Vista Field improvements have been separated into three phases, and are described in detail in **Chapter 8**. The resulting fire flow availability in each corner of Vista Field is presented in **Table 3-23** for each phase of proposed improvements. The average fire flow availability throughout Vista Field increases by approximately 1,000 gpm with the completion of each improvement phase. As development plans become available for Vista Field, it is recommended that the City identify the actual fire flow requirements of the development, and confirm that the proposed Vista Field water system improvements provide adequate flows and pressures to the development.

Table 3-23
Vista Field Phased Improvement Fire Flow Analysis Summary

Land Use	Approximate Location	Existing Pressure Zone	Node Number	Available Fire Flow (gpm)				Target Fire Flow (gpm)
				Existing System	Phase 1 Improvements	Phase 2 Improvements	Phase 3 Improvements	
Commercial	SW corner of Vista Field, in Young St	Zone 2	J-7670	1,190	1,843	4,983	5,078	4,000
Industrial	SE corner of Vista Field, near intersection of Okanogan Ave and Hood Pl	Zone 2	J-8494	2,132	2,844	2,818	6,000	5,000
Commercial	NE corner of Vista Field, in Kellogg St	Zone 2	J-9811	2,056	3,560	3,666	3,983	4,000
Public Facility	NW corner of Vista Field, in Okanogan Pl	Zone 2	J-12623	1,676	2,138	2,160	2,164	4,000

Distribution and Transmission System Deficiencies

This section presents a summary of the distribution and transmission system deficiencies that were identified from the results of the hydraulic analyses of the existing water system and also includes deficiencies unrelated to the capacity of the mains. These low pressure deficiencies will be eliminated upon completion of the proposed improvements that are presented in **Chapter 8**. Services in the high pressure areas are equipped with individual pressure reducing valves, and all future service connections in these areas will be required to install individual pressure reducing valves.

Pressure Deficiencies

Areas of low and high pressures are shown in **Table 3-19**. Areas of low pressure during extreme peak conditions, such as droughts, are shown in **Table 3-20**.

Fire Flow Deficiencies

Areas of low fire flow availabilities are shown in **Tables 3-21** and **3-22**.

Other Deficiencies

Some areas of the system have water mains that are more than 50 years old, which is approaching the average life expectancy of water mains installed at that time. Much of the older water main, is either asbestos cement (AC) or steel, which comprise approximately 30 percent and 12 percent, respectively, of the water main in the City's system. These water mains may be in need of replacement. Most of the AC and steel water main is located in the older areas of the City.

The City is planning to replace deficient water mains in the future, as shown in the schedule of planned improvements in **Chapter 8**.

PHYSICAL SYSTEM CAPACITY

This section evaluates the capacity of the City's water system components (e.g., supply, storage, and transmission) to determine the maximum number of ERUs it can serve. Once determined, system capacity becomes useful in determining how much capacity is available in the water system to support new customers that apply for water service. The system capacity information, together with the projected growth of the system expressed in ERUs, as presented in **Table 2-14** of **Chapter 2**, also provides the City with a schedule of when additional system capacity is needed.

ANALYSIS CRITERIA

The capacity of the City's system was determined from the limiting capacity of the supply, storage, and transmission facilities (i.e., the facility with the least capacity). The maximum day based source capacity analysis considered the physical capacity of the City's supply facilities, and compared the capacity to the system's MDD per ERU, which includes distribution system leakage (DSL).

The storage capacity analysis was based on the storage capacity for equalizing and standby storage and the computed storage requirement per ERU. Operational and fire flow storage capacity were excluded from the storage analysis because these components are not directly determined by water demand or ERUs. For the analyses, a reserve amount equivalent to the existing operational and fire flow storage requirements was deducted from the total available storage capacity to determine the storage capacity available for equalizing and standby storage since distribution system pressure limits do not restrict equalizing and standby storage. The storage capacity available for equalizing and standby storage was divided by the existing number of ERUs presented in **Chapter 2** to determine the storage requirement per ERU. The ERU-based demand data was derived from the ADD of the system and peaking factors from **Chapter 2**.

The transmission capacity analysis was based on the total capacity of the transmission system with a maximum pipeline velocity of 5 fps for the PHD analysis and 10 fps for the MDD plus fire flow analysis. The transmission system includes two 8-inch-diameter water mains and one 42-inch-diameter water main extending from the WTP, and the 16- and 48-inch-diameter water mains extending from Ranney Wells No. 4 and 5. The transmission capacity analysis considered the limiting supply requirement between the system's PHD and the MDD plus the maximum fire flow requirement for the system. In both the existing and future analyses, PHD is the limiting supply requirement that was used to compare with the system's transmission capacity.

CAPACITY ANALYSIS RESULTS

A summary of the results of the existing system capacity analysis is shown in **Table 3-24**. The results of the existing system capacity analysis indicate that the limiting capacity of the system is the source capacity based on the MDD, which can support up to a maximum of approximately 51,782 ERUs. The existing water system has a surplus of approximately 6,757 ERUs. All other water system components have a higher capacity to support existing water system customers.

**Table 3-24
Existing System Capacity Evaluation**

Demands Per ERU Basis	
Average Day Demand Per ERU (gal/day) ¹	244
Maximum Day Demand Per ERU (gal/day) ¹	458
Peak Hour Demand Per ERU (gal/day) ¹	703
Water Rights Capacity - Annual Average Based	
Water Rights Capacity - Annual Average Based (gal/day)	16,075,370
Average Day Demand Per ERU (gal/day)	244
Water Rights Annual Average Based Source Capacity (ERUs)	65,873
Water Rights Capacity - Instantaneous Based	
Water Rights Capacity - Instantaneous Based (gal/day)	66,199,680
Maximum Day Demand Per ERU (gal/day)	458
Maximum Day Based Source Capacity (ERUs)	144,641
Source Capacity - Maximum Day Based	
Source Treatment Capacity - Maximum Day Based (gal/day)	23,700,000
Maximum Day Demand Per ERU (gal/day)	458
Maximum Day Based Source Treatment Capacity (ERUs)	51,782
Storage Capacity	
Maximum Equalizing & Standby Storage Capacity (gal)	24,117,093
Equalizing & Standby Storage Requirement per ERU (gal)	269
Maximum Storage Capacity (ERUs)	89,771
Transmission Capacity - PHD Based (5 fps)	
Transmission Capacity (gal/day)	78,468,600
Peak Hour Demand per ERU (gal/day)	703
Maximum Transmission Capacity (ERUs)	111,648
Transmission Capacity - MDD + Fire Flow Based (10 fps)	
Transmission Capacity (gal/day)	156,937,400
MDD + Maximum Fire Flow Requirement (gpm)	19,311
Maximum Day Demand per ERU (gal/day)	458
Maximum Transmission Capacity (ERUs)	282,137
Maximum System Capacity	
Based on Limiting Facility - Source Capacity (Max Day Based)	51,782
Unused Available System Capacity	
Maximum System Capacity (ERUs)	51,782
Existing (2015) ERUs	45,026
Unused Available System Capacity (ERUs)	6,757

(1) Includes DSL.

The results of the 6- and 10-year projected system capacity analysis, shown in **Table 3-25**, indicate that the system capacity will remain constant at approximately 51,782 ERUs based on the limiting component of the source capacity. The system is projected to have a surplus system capacity of 3,045 ERUs in 2021, and 124 ERUs in 2025. The results of the 12-year projected system capacity analysis indicate that the system capacity will increase to approximately 53,119 ERUs. This increase is based on the presumed 425 gpm operation of the ASR Well, as shown in **Table 3-3**, which is the minimum supply rate needed in the 12-year planning period to meet the projected system demands. As such, the system will have zero unused capacity in the 12-year planning period. If the ASR Well is fully permitted and operational prior to 2027, the results of the 12-year projected system capacity analysis will indicate an approximate 12-year surplus capacity of approximately 5,200 ERUs. Conversely, if the ASR Well is not operational prior to 2027 and the existing source capacity remains the same, the results of the 12-year projected system capacity analysis will indicate an approximate 12-year capacity deficiency of approximately 1,300 ERUs.

Table 3-25
6-, 10-, and 12-year Projected System Capacity Evaluation

Description	2021 (+6 Years)	2025 (+10 Years)	2027 (+12 Years)
Demands Per ERU Basis			
Average Day Demand Per ERU (gal/day) ¹	244	244	244
Maximum Day Demand Per ERU (gal/day) ¹	458	458	458
Peak Hour Demand Per ERU (gal/day) ¹	703	703	703
Water Rights Capacity - Annual Average Based			
Water Rights Capacity - Annual Average Based (gal/day)	16,075,370	16,075,370	16,075,370
Average Day Demand Per ERU (gal/day)	244	244	244
Water Rights Annual Average Based Source Capacity (ERUs)	65,873	65,873	65,873
Water Rights Capacity - Instantaneous Based			
Water Rights Capacity - Instantaneous Based (gal/day)	66,199,680	66,199,680	66,199,680
Maximum Day Demand Per ERU (gal/day)	458	458	458
Maximum Day Based Source Capacity (ERUs)	144,641	144,641	144,641
Source Capacity - Maximum Day Based			
Source Treatment Capacity - Maximum Day Based (gal/day)	23,700,000	23,700,000	24,311,620
Maximum Day Demand Per ERU (gal/day)	458	458	458
Maximum Day Based Source Treatment Capacity (ERUs)	51,782	51,782	53,119
Storage Capacity			
Maximum Equalizing & Standby Storage Capacity (gal)	24,117,093	24,117,093	24,117,093
Equalizing & Standby Storage Requirement per ERU (gal)	269	269	269
Maximum Storage Capacity (ERUs)	89,771	89,771	89,771
Transmission Capacity - PHD Based (5 fps)			
Transmission Capacity (gal/day)	78,468,600	78,468,600	78,468,600
Peak Hour Demand per ERU (gal/day)	703	703	703
Maximum Transmission Capacity (ERUs)	111,648	111,648	111,648
Transmission Capacity - MDD + Fire Flow Based (10 fps)			
Transmission Capacity (gal/day)	156,937,400	156,937,400	156,937,400
MDD + Maximum Fire Flow Requirement (gpm)	19,311	19,311	19,311
Maximum Day Demand per ERU (gal/day)	458	458	458
Maximum Transmission Capacity (ERUs)	282,137	282,137	282,137
Maximum System Capacity			
Based on Limiting Facility - Source Capacity (Max Day Based)	51,782	51,782	53,119
Unused Available System Capacity			
Maximum System Capacity (ERUs)	51,782	51,782	53,119
Projected ERUs	48,737	51,658	53,119
Unused Available System Capacity (ERUs)	3,045	124	0

(1) Includes DSL.

WATER QUALITY ANALYSIS

DRINKING WATER REGULATIONS

Overview

The quality of drinking water in the United States is regulated by the U.S. Environmental Protection Agency (EPA). Under provisions of the Safe Drinking Water Act (SDWA), the EPA is allowed to delegate primary enforcement responsibility for water quality control to each state. In the State of Washington, the DOH is the agency responsible for implementing and enforcing drinking water regulations. For the State of Washington to maintain primacy (delegated authority to implement requirements) under the SDWA, the state must adopt drinking water regulations that are at least as stringent as the federal regulations. In meeting these requirements, the state, in cooperation with the DOH, has published drinking water regulations that are contained in Chapter 246-290 WAC.

Existing Regulations

The Federal SDWA was enacted in 1974 as a result of public concern about water quality. The SDWA sets standards for the quality of drinking water and requires water treatment if these standards are not met. The SDWA also sets water testing schedules and methods that water systems must follow. In 1986, the SDWA was amended as a result of additional public concern and frequent contamination of groundwater from industrial solvents and pesticides. The 1986 Amendments require water systems to monitor and treat for a continuously increasing number of water contaminants identified in the new federal regulations. The EPA regulated approximately 20 contaminants between 1974 and 1986. The 1986 Amendments identified 83 contaminants that the EPA was required to regulate by 1989. Implementation of the new regulations has been marginally successful due to the complexity of the regulations and the associated high costs. To rectify the slow implementation of the new regulations, the SDWA was amended again and re-authorized in August of 1996.

In response to the 1986 SDWA Amendments, the EPA established six rules, known as the Phase I Rule, Phase II and IIB Rules, Phase V Rule, Surface Water Treatment Rule (SWTR), Total Coliform Rule, and Lead and Copper Rule. The EPA regulates most chemical contaminants through the Phase I, II, IIB, and V Rules. The City's active sources are affected by many of these rules.

The EPA set two limits for each contaminant that is regulated under the rules. The first limit is a health goal, referred to as the Maximum Contaminant Level Goal (MCLG). The MCLG is zero for many contaminants, especially known cancer-causing agents (carcinogens). The second limit is a legal limit, referred to as the Maximum Contaminant Level (MCL). The MCLs are equal to or higher than the MCLGs; however, most MCLs and MCLGs are the same, except for contaminants that are regulated as carcinogens. The health goals (MCLGs) for carcinogens are typically zero, because they cause cancer and it is assumed that any amount of exposure may pose some risk of cancer. A summary of each rule follows.

To fully understand the discussion that follows, a brief definition of several key terms is provided below.

- Organic Chemicals – Animal or plant produced substances containing carbon and other elements such as hydrogen and oxygen.

- Synthetic Organic Chemicals (SOCs) – Man-made organic substances including herbicides, pesticides, and various industrial chemicals and solvents.
- Volatile Organic Compounds (VOCs) – Chemicals, as liquids, that evaporate easily into the air.
- Inorganic Chemicals (IOCs) – Chemicals of mineral origin that are naturally occurring elements. These include metals such as lead and cadmium.

Phase I Rule

The Phase I Rule, which was the EPA's first response to the 1986 Amendments, was published in the Federal Register on July 8, 1987, and became effective on January 9, 1989. This rule provided limits for eight VOCs that may be present in drinking water. VOCs are used by industries in the manufacture of rubber, pesticides, deodorants, solvents, plastics, and other chemicals. VOCs are found in everyday items such as gasoline, paints, thinners, lighter fluid, mothballs, and glue, and are typically encountered at dry cleaners, automotive service stations, and elsewhere in industrial processes. The City currently complies with all contaminant monitoring requirements under this rule.

Phase II and IIb Rules

The Phase II and IIb Rules were published in the Federal Register on January 30, 1991 and July 1, 1991, and became effective on July 30, 1992 and January 1, 1993, respectively. These rules updated and created limits for 38 contaminants (organics and inorganics), of which 27 were newly regulated. Some of the contaminants are frequently applied agricultural chemicals (nitrate), while others are more obscure industrial chemicals. The City currently complies with all contaminant monitoring requirements under this rule.

Phase V Rule

The Phase V Rule was published in the Federal Register on July 17, 1992, and became effective on January 17, 1994. This rule set standards for 23 additional contaminants, of which 18 are organic chemicals (mostly pesticides and herbicides), and 5 are IOCs (such as cyanide). The City currently complies with all contaminant monitoring requirements under this rule.

Surface Water Treatment Rule

The SWTR was published in the Federal Register on June 29, 1989, and became effective on December 31, 1990. Surface water sources, such as rivers, lakes, and reservoirs (which are open to the atmosphere and subject to surface runoff), and groundwater under the influence of surface water (GWI) sources are governed by this rule. The SWTR seeks to prevent waterborne diseases caused by the microbes *Cryptosporidium*, *Legionella*, and *Giardia lamblia*, which are present in most surface waters. The rule requires disinfection of all surface water sources and GWI sources. All surface water sources and GWI sources must also be filtered, unless a filtration waiver is granted. A filtration waiver may be granted to systems with pristine sources that continuously meet stringent source water quality and protection requirements. The City currently filters and chlorinates the Columbia River source and provides UV disinfection and chlorination at the Ranney Wells No. 4 and No. 5 sources, and therefore complies with the requirements of this rule.

Interim Enhanced Surface Water Treatment Rule

The EPA proposed the Interim Enhanced Surface Water Treatment Rule (IESWTR) on July 29, 1994. The final rule was published in the Federal Register on December 16, 1998, and became effective on February 16, 1999, concurrent with the Stage 1 Disinfectants/Disinfection Byproducts Rule. The rule primarily applies to public water systems that serve 10,000 or more people and use surface water or GWI sources. The rule also requires primacy agencies (i.e., DOH in Washington State) to conduct sanitary surveys of all surface water and GWI systems, regardless of size. The rule is the first to directly regulate the protozoan *Cryptosporidium* and has set the MCLG for *Cryptosporidium* at zero. Water systems affected by this rule needed to comply with it by December 16, 2001. The City currently filters and chlorinates the Columbia River source and provides UV disinfection and chlorination at the Ranney Wells No. 4 and No. 5 sources, and therefore complies with the requirements of this rule.

Long Term 1 Enhanced Surface Water Treatment Rule

This is the follow-up rule to the IESWTR and became effective in December of 1998. The final Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) was published on January 14, 2002, and became effective February 13, 2002. The rule addresses water systems using surface water or GWI sources serving fewer than 10,000 people. The rule extends protections against *Cryptosporidium* for smaller water systems. The City currently filters and chlorinates the Columbia River source and disinfects the Ranney Wells No. 4 and No. 5 sources, and therefore complies with the requirements of this rule.

Revised Total Coliform Rule

The Total Coliform Rule was published in the Federal Register on June 29, 1989, and became effective on December 31, 1990. The rule set both health goals (MCLGs) and legal limits (MCLs) for total coliform levels in drinking water, and the type and frequency of testing that is required for water systems. The rule requires more monitoring than prior requirements, especially for small systems. In addition, every public water system is required to develop a coliform monitoring plan, subject to approval by DOH.

On February 13, 2013, the EPA published revisions to the rule in the Federal Register, which sets an MCL for *Escherichia Coli* (*E. Coli*), and specifies the frequency and timing of coliform testing based on population served, public water system type, and source water type. Water systems that are vulnerable to microbial contamination must conduct an assessment of their system and fix any sanitary defects.

Coliform is a group of bacteria, some of which live in the digestive tract of humans and many animals, and are excreted in large numbers with feces. Coliform can be found in sewage, soils, surface waters, and vegetation. The presence of any coliform in drinking water indicates a potential health risk and potential waterborne disease outbreak, which may include gastroenteric infections, dysentery, hepatitis, typhoid fever, cholera, and other infectious diseases. *E. Coli* is a member of the coliform group that is almost exclusively of fecal origin, and their presence can lead to increased health risks.

The rule established the health goals for total coliform and *E. Coli* at zero. To comply with the legal limit, systems may not find coliform in more than 5 percent of the samples taken each month. Based on the 2015 water service area population of 82,187, the City must take 80 samples per month (WAC 246-290-300). If five samples are found to contain coliform, the City would have exceeded the legal limit, triggering the follow-up sampling requirements. A copy of the City's Water Quality

Monitoring Plan, including the coliform monitoring program, is contained in **Appendix H** of this Water Comprehensive Plan (WCP).

Lead and Copper Rule

The Lead and Copper Rule was published in the Federal Register on June 7, 1991, and became effective on December 7, 1992. On January 12, 2000, the EPA published some minor revisions to the rule in the Federal Register, which primarily improved the rule's implementation. On June 29, 2004, additional minor revisions and clarification of several requirements of the Lead and Copper Rule were published by the EPA. The rule identifies "action levels" for both lead and copper. An action level is different than a MCL in that a MCL is a legal limit for a contaminant, and an action level is a trigger for additional prevention or removal steps. The action level for lead is greater than 0.015 milligrams per Liter (mg/L). The action level for copper is greater than 1.3 mg/L. If the 90th percentile concentration of either lead or copper from the group of samples exceeds these action levels, a corrosion control study must be undertaken to evaluate strategies and make recommendations for reducing the lead or copper concentration below the action levels. The rule requires systems that exceed the lead level to educate the affected public about reducing its lead intake. Systems that continue to exceed the lead action level after implementing corrosion control and source water treatment may be required to replace piping in the system that contains the source of lead. Corrosion control is typically accomplished by increasing the pH of the water to make it less corrosive, which reduces its ability to breakdown water pipes and absorb lead or copper.

Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery, porcelain, pewter, brass, and water. Lead can pose a significant risk to health if too much of it enters the body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells, and kidneys. The greatest risk is to young children and pregnant women. Lead can slow down normal mental and physical development of growing bodies.

Copper is a common, natural, and useful metal found in our environment. It is also a trace element needed in most human diets. The primary impact of elevated copper levels in water systems is stained plumbing fixtures. At certain levels (well above the action levels), copper may cause nausea, vomiting, and diarrhea. It can also lead to serious health problems in people with Wilson's disease. Long-term exposure to elevated levels of copper in drinking water could also increase the risk of liver and kidney damage. The City currently complies with all contaminant monitoring requirements under this rule.

Radionuclides Rule

The EPA established interim drinking water regulations for radionuclides in 1976 under the SDWA. MCLs were established for alpha, beta, and photon emitters, and radium 226/228. Radionuclides are elements that undergo a process of natural decay and emit radiation in the form of alpha or beta particles and gamma photons. The radiation can cause various kinds of cancers, depending on the type of radionuclide exposure from drinking water. The regulations address both man-made and naturally occurring radionuclides in drinking water.

The 1986 SDWA Amendments finalized the regulations for radionuclides by eliminating the term "interim." The Amendments also directed the EPA to promulgate (publish as law) health-based MCLGs, as well as MCLs. The EPA failed to meet the statutory schedules for promulgating the radionuclide regulations, which resulted in a lawsuit. In 1991, the EPA proposed revisions to the regulations, but a final regulation based on the proposal was never published. The 1996 SDWA Amendments directed the EPA to revise a portion of the earlier proposed revisions, adopt a

schedule, and review and revise the regulations every 6 years, as appropriate, to maintain or improve public health protection. Subsequent to the 1996 Amendments, a 1996 court order required the EPA to either finalize the 1991 proposal for radionuclides or ratify the existing standards by November 2000.

The final rule was published in the Federal Register on December 7, 2000, and became effective on December 8, 2003. The rule established an MCLG of zero for the four regulated contaminants and MCLs of 5 picocuries per liter (pCi/L) for combined radium-226 and radium-228, 15 pCi/L for gross alpha (excluding radon and uranium), 4 millirems per year (mrem/year) for beta particle and photon radioactivity, and 30 micrograms per liter (ug/L) for uranium. The City currently complies with all contaminant monitoring requirements under this rule.

Watershed Control Program

The Washington State mandate for watershed protection and the required elements of a watershed control program are contained in WAC 246-290-135, Source Protection, which became effective in July of 1994. In Washington State, DOH is the lead agency for the development and administration of the State's Watershed Control Program.

A watershed control program is a proactive and ongoing effort of a water purveyor to exercise surveillance over the conditions and activities within the watershed affecting source water quality to protect the health of its customers, as outlined in WAC 246-290-668, Watershed Control. All federally defined Group A public water systems that use surface water or groundwater as their source are required to develop and implement a watershed control program. All required elements of a watershed control program must be documented and included in the purveyor's Water Comprehensive Plan (applicable to the City) or Small Water System Management Program (not applicable to the City) at least every 6 years. A copy of the 2008 Water Resource Inventory Area (WRIA) 31 Watershed Management Plan is contained in **Appendix I**.

Wellhead Protection Program

Section 1428 of the 1986 SDWA Amendments mandates that each state develop a wellhead protection program. The Washington State mandate for wellhead protection and the required elements of a wellhead protection program are contained in WAC 246-290-135, Source Protection, which became effective in July of 1994. In Washington State, the DOH is the lead agency for the development and administration of the State's wellhead protection program.

A wellhead protection program is a proactive and ongoing effort of a water purveyor to protect the health of its customers by preventing contamination of the groundwater that it supplies as drinking water. All federally defined Group A public water systems that use groundwater as their source are required to develop and implement a wellhead protection program. All required elements of a local wellhead protection program must be documented and included in the Water Comprehensive Plan. A copy of the City's Wellhead Protection Plan is contained in **Appendix J** of this WCP.

Consumer Confidence Report

The final rule for the Consumer Confidence Report (CCR) was published in the Federal Register on August 19, 1998, and became effective on September 18, 1998. Minor revisions were posted in the Federal Register on May 4, 2000. The CCR is the centerpiece of the right-to-know provisions of the 1996 SDWA Amendments. All community water systems like the City were required to issue the first report to customers by October 19, 1999. The annual report must be updated and re-issued to all customers by July 1st of each year thereafter.

The CCR is a report on the quality of water that was delivered to the system during the previous calendar year. The reports must contain certain specific elements but may also contain other information that the purveyor deems appropriate for public education. Some, but not all, of the information that is required in the reports includes the source and type of the drinking water, type of treatment, contaminants that have been detected in the water, potential health effects of the contaminants, identification of the likely source of contamination, violations of monitoring and reporting, and variances or exemptions to the drinking water regulations. A copy of the City's most recent CCR is contained in **Appendix K**.

Stage 1 Disinfectants/Disinfection Byproducts Rule

Disinfection byproducts (DBPs) are formed when free chlorine reacts with organic substances, most of which occur naturally. These organic substances (called precursors) are a complex and variable mixture of compounds. The DBPs themselves may pose health risks. Trihalomethanes (THM) are a category of DBP that had been regulated previous to this rule. However, systems with groundwater sources that serve a population of less than 10,000 were not previously required to monitor for THM.

The EPA proposed the Stage 1 Disinfectants/Disinfection Byproducts Rule (D/DBPR) on July 29, 1994. The final rule was published in the Federal Register on December 16, 1998, and became effective on February 16, 1999. The rule applies to the City and most other water systems, including systems serving fewer than 10,000 people that add a chemical disinfectant to the drinking water during any part of the treatment process. The rule reduced the MCL for total THM, which are a composite measure of four individual THM, from the previous interim level of 0.10 mg/L to 0.08 mg/L. The rule established MCLs and requires monitoring of three additional categories of DBPs (0.06 mg/L for five haloacetic acids (HAA5), 0.01 mg/L for bromate, and 1.0 mg/L for chlorite). The rule established maximum residual disinfectant levels for chlorine (4.0 mg/L), chloramines (4.0 mg/L), and chlorine dioxide (0.8 mg/L). The rule also requires systems using surface water or groundwater directly influenced by surface water to implement enhanced coagulation or softening to remove DBP precursors, unless alternative criteria are met. Compliance with this rule must have been satisfied by December 16, 2001 for large surface water systems (those serving over 10,000 people, i.e., the City), and by December 16, 2003 for smaller surface water systems and all groundwater systems. The City currently complies with all contaminant monitoring requirements under this rule.

Stage 2 Disinfectants/Disinfection Byproducts Rule

This rule is the second part of the D/DBPR, of which Stage 1 D/DBPR became effective in February 1999. The Stage 2 D/DBPR was published in the Federal Register on January 4, 2006, and became effective on March 6, 2006. The EPA implemented this rule simultaneously with the Long Term 2 Enhanced Surface Water Treatment Rule.

Similar to the Stage 1 D/DBPR, this rule applies to most water systems that add a disinfectant to the drinking water other than ultraviolet light or those systems that deliver such water. The Stage 2 D/DBPR changes the calculation procedure requirement of the MCLs for two groups of disinfection byproducts, total THM (TTHM) and HAA5. The rule requires each sampling location to determine compliance with MCLs based on their individual annual average DBP levels (termed the Locational Running Annual Average), rather than utilizing a system-wide annual average. The rule also proposes new MCLGs for chloroform (0.07 mg/L), trichloroacetic acid (0.02 mg/L), and monochloroacetic acid (0.03 mg/L).

Additionally, the rule requires systems to document peak DBP levels and prepare an Initial Distribution System Evaluation (IDSE) to identify Stage 2 D/DBPR compliance monitoring sites. IDSEs require each water system to prepare a separate IDSE plan and report, with the exception of those systems who obtain a 40/30 Certification or a Very Small System Waiver. In order to qualify for the 40/30 Certification, all samples collected during Stage 1 monitoring must have TTHM and HAA5 levels less than or equal to 0.040 mg/L and 0.030 mg/L, respectively. The first stage of the IDSE schedule required systems serving 100,000 or more people to submit IDSE plans by October 1, 2006. Systems serving 50,000 to 99,999 people, such as the City, had to submit IDSE plans by April 1, 2007. The City currently complies with all contaminant monitoring requirements under this rule and has completed its IDSE plan, which is included in **Appendix L**.

Long Term 2 Enhanced Surface Water Treatment Rule

Following the publishing of the IESWTR, the EPA introduced the LT1ESWTR to supplement the preceding regulations. The second part of the regulations of the LT1ESWTR, which became effective in February 2002, are mandated in the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). The final rule was published in the Federal Register on January 5, 2006, and became effective on March 6, 2006. The final rule was implemented simultaneously with the Stage 2 D/DBPR described in the previous section. This rule applies to all systems that use surface water or GWI sources.

This rule establishes treatment technique requirements for filtered systems based on their risk level for contamination, calculated from the system's average *Cryptosporidium* concentration. Requirements include up to 2.5-log *Cryptosporidium* treatment, in addition to existing requirements under the IESWTR and LT1ESWTR. Filtered systems that demonstrate low levels of risk will not be required to provide additional treatment. Unfiltered systems under this rule must achieve at least a 2-log inactivation of *Cryptosporidium* if the mean level in the source water remains below 0.01 oocysts/L. If an unfiltered system's mean level of *Cryptosporidium* exceeds 0.01 oocysts/L, the LT2ESWTR requires the system to provide a minimum 3-log inactivation of *Cryptosporidium*. All unfiltered systems are also required to utilize a minimum of two disinfectants in their treatment process.

The LT2ESWTR also addresses systems with unfinished water storage facilities. Under this rule, systems must either cover their storage facilities or achieve inactivation and/or removal of 4-log virus, 3-log *Giardia lamblia* and 2-log *Cryptosporidium* on a state-approved schedule. Lastly, the rule extends the requirement of the disinfection profiles mandated under the LT1ESWTR to the proposed Stage 2 D/DBPR. The City currently filters and chlorinates the Columbia River source and provides UV disinfection and chlorination at the Ranney Wells No. 4 and No. 5 sources, and therefore complies with the requirements of this rule.

Unregulated Contaminant Monitoring Regulation

The EPA established the Unregulated Contaminant Monitoring Regulation (UCMR) to generate data on contaminants that are being considered for inclusion in new drinking water standards. The information collected by select public water systems will ensure that future regulations established by the EPA are based on sound science. The rule was first published in the Federal Register on September 17, 1999, and was subsequently amended on March 2, 2000, and January 11, 2001. The UCMR became effective on January 1, 2001.

Three separate lists of unregulated contaminants are maintained under the UCMR: List 1; List 2; and List 3. Contaminants are organized on the tiered lists based on the availability of standard testing procedures and the known occurrence of each contaminant, with List 1 containing contaminants

that have established standard testing procedures and some, but insufficient, information on their occurrence in drinking water. Monitoring for contaminants on the three lists is limited to a maximum of 30 contaminants within a 5-year monitoring cycle, and the EPA is required to publish new contaminant monitoring lists every 5 years. As new lists are published, contaminants will be moved up the lists if adequate information is found to support additional monitoring. All public water systems serving more than 10,000 people and a randomly selected group of smaller water systems are required to monitor for contaminants. The City currently monitors for unregulated contaminants.

Arsenic

The EPA established interim drinking water regulations for arsenic in 1976 under the SDWA. Arsenic is highly toxic, affects the skin and nervous system, and may cause cancer. The 1996 SDWA Amendments require the EPA to conduct research to assess health risks associated with exposure to low levels of arsenic. The EPA issued a proposed regulation on June 22, 2000, and allowed a 90-day public review period. The final rule, which was published in the Federal Register on January 22, 2001, was to become effective on March 23, 2001, except for certain amendments to several sections of the rule. However, on May 22, 2001, the EPA announced that it was delaying the effective date for the rule until February 22, 2002, to allow time to reassess the rule and afford the public a full opportunity to provide further input. On October 31, 2001, the EPA implemented the final rule.

The rule sets the MCLG of arsenic at zero and reduces the MCL from the current standard of 0.05 mg/L to 0.01 mg/L. Arsenic's monitoring requirements are consistent with the existing requirements for other inorganic contaminants. The City has complied with these monitoring requirements since the regulations were implemented.

Filter Backwash Recycling Rule

The 1996 SDWA amendments required the EPA to promulgate a regulation governing the recycling of filter backwash water within public water systems' treatment processes. Public water systems using surface water or groundwater under the direct influence of surface water that utilize filtration processes and recycling must comply with this rule. The rule aims to reduce risks associated with recycling contaminants removed during filtration. The EPA issued a proposed regulation on June 22, 2000, and allowed a 90-day public review period. The final rule was published in the Federal Register on June 8, 2001, and became effective on August 7, 2001.

The rule requires filter backwash water be returned to a location that allows complete treatment. In addition, filtration systems must provide detailed information regarding the treatment and recycling process to the state. The regulation requires water systems to have complied with the rule starting December 8, 2003, if filter backwash water was recycled. The Columbia River Water Treatment Facility does not recycle backwash water; therefore, this rule does not apply.

Groundwater Rule

The EPA promulgated the Groundwater Rule (GWR) to reduce the risk of exposure to fecal contamination that may be present in public water systems that use groundwater sources. The GWR also specifies when corrective action (which may include disinfection) is required to protect consumers who receive water from groundwater systems from bacteria and viruses. The GWR applies to public water systems that use groundwater and to any system that mixes surface and ground waters if the groundwater is added directly to the distribution system and provided to

consumers without treatment equivalent to surface water treatment. The final rule was published in the Federal Register on November 8, 2006, and became effective on January 8, 2007.

The rule targets risks through an approach that relies on the four following major components.

1. Periodic sanitary surveys of groundwater systems that require the evaluation of eight critical elements and the identification of significant deficiencies (such as a well located near a leaking septic system). States must complete the initial survey for most community water systems by December 31, 2012, and for community water systems with outstanding performance and all non-community water systems by December 31, 2014. DOH conducted its most recent sanitary survey of the City's water system on June 11, 2014, under the state's existing sanitary survey program.
2. Source water monitoring to test for the presence of *E. coli*, enterococci, or coliphage in the sample. There are two monitoring provisions.
 - Triggered monitoring for systems that do not already provide treatment that achieves at least 99.99 percent (4-log) inactivation or removal of viruses and that have a total coliform positive routine sample under the Total Coliform Rule sampling in the distribution system.
 - Assessment monitoring is a complement to triggered monitoring. A state has the option to require systems to conduct source water assessment monitoring at any time to help identify high risk systems.
3. Corrective actions required for any system with a significant deficiency or source water fecal contamination. The system must implement one or more of the following corrective action options: correct all significant deficiencies; eliminate the source of contamination; provide an alternate source of water; or provide treatment that reliably achieves 99.99 percent inactivation or removal of viruses.
4. Compliance monitoring to ensure that treatment technology installed to treat drinking water reliably achieves at least 99.99 percent inactivation or removal of viruses.

The compliance date for requirements of this rule other than the sanitary survey was December 1, 2009. The City's last sanitary survey was completed in June 2014, and no significant deficiencies were observed during the survey, which is included in **Appendix G**. The City currently complies with all other requirements of the rule.

Per- and Polyfluoroalkyl Substances

In 2016, the EPA established a health advisory level for per- and polyfluoroalkyl substances (PFAS) at 70 parts per trillion (ppt). DOH proposed a regulation for PFAS in 2017, and state action levels (SALs) for these substances are in effect as of April 9, 2022. The SALs are 10 ppt for perfluorooctanoic acid (PFOA), 15 ppt for perfluorooctane sulfonic acid (PFOS), 9 ppt for perfluorononanoic acid (PFNA), 65 ppt for perfluorohexane sulfonate (PFHxS), and 345 ppt for perfluorobutane sulfonic acid (PFBS). As of mid-2024, it is not known when or what a federal PFAS regulation may require as adopted by the EPA or what will be the rule's implementation schedule. All community and non-transient non-community public water systems must test for PFAS. Water systems that find PFAS in their supply are required to complete additional monitoring, and systems that exceed a SAL are required to notify their customers.

Sampling in 2023 for PFAS revealed contamination in Ranney Collector 4 Well (RC4) and Ranney Collector 5 Well (RC5) source water. In addition, levels of PFOS and PFOA in treated water exceeded the EPA proposed Maximum Contaminant Level (MCL) of 4 ppt. In response to March

12, 2024 samples taken at the RC4 and RC5 source that exceeded the PFOS State Action Level of 15 ppt, the City provided a Tier 2 public notice to customers.

The City is actively reviewing PFAS contamination improvements, presented in detail in **Chapter 8**.

Future Regulations

Drinking water regulations are continuously changing in an effort to provide higher quality and safer drinking water. Modifications to the existing rules described above and implementation of new rules are planned for the near future. A summary of upcoming drinking water regulations that will most likely affect the City is presented below.

Radon

In July of 1991, the EPA proposed a regulation for radon, as well as three other radionuclides. The 1996 SDWA amendments required the EPA to withdraw the 1991 proposal due to several concerns that were raised during the comment period. A new proposed regulation was published in the Federal Register on November 2, 1999. Comments on the proposed rule were due to the EPA by February 4, 2000. Final federal requirements for addressing radon were delayed until 2008 but have not yet been published. The rule proposes a 300 pCi/L MCL for community water systems that use groundwater or an alternative, less stringent MCL of 4,000 pCi/L for water systems where their state implements an EPA-approved program to reduce radon risks in household indoor air and tap water. It is not currently known when or what a radon regulation may require as adopted by the EPA or what will be the implementation schedule for the rule. Because the final radon rule requirements are uncertain, the impact of this rule on the City is unknown at this time.

Unregulated Contaminant Monitoring Regulation Revisions

In accordance with the original Unregulated Contaminant Monitoring Regulation (UCMR), the EPA is proposing an updated contaminant monitoring list for the next 5-year monitoring cycle, in addition to other minor revisions to the UCMR. The proposed rule was published August 22, 2005, in the Federal Register, and the comment period for the proposed revisions closed on October 21, 2005. The proposed revisions include a list of 26 chemicals that were monitored during the 2007 through 2011 monitoring cycle, and approves several new testing methods to conduct the monitoring. For this upcoming cycle, all systems serving more than 100,000 people and a larger representative sample of smaller water systems than mandated under the original rule will be required to monitor for contaminants. The rule also requires additional water system data to be reported with the monitoring results, establishes a procedure for determining minimum reporting levels, and proposes several revisions to the implementation of the monitoring program.

4 | WATER RESOURCE ANALYSIS AND WATER USE EFFICIENCY

INTRODUCTION

The City of Kennewick (City) acknowledges that water is a valuable and necessary natural resource that must be used wisely. The Water Use Efficiency (WUE) program provides an approach to increase WUE within the City's water system.

BACKGROUND

THE WATER USE EFFICIENCY RULE

The Washington State Department of Health (DOH) implemented the WUE Rule, effective on January 22, 2007, as required by the Municipal Water Supply – Efficiency Requirements Act, also known as the Municipal Water Law (MWL), passed by the Washington State Legislature in September 2003. The MWL requires the state to implement the WUE Rule. The intent of the rule is to help reduce the demand that growing communities, agriculture, and industry have placed on the state's water resources, and to better manage these resources for fish and other wildlife. Municipal water suppliers are obligated under the WUE Rule to enhance the efficient use of water by the system and/or its consumers. The requirements of the WUE Rule are set forth in Washington Administrative Code (WAC) Chapter 246-290, Part 8.

WATER USE EFFICIENCY REQUIREMENTS

The *Water Use Efficiency Guidebook*, published by DOH in January 2011, identifies the water use reporting, forecasting, and efficiency program requirements for public water systems. A WUE program meeting these requirements is a necessary element of a water system plan as required by the DOH and is necessary to obtain water right permits from the Washington State Department of Ecology (Ecology). The *Water Use Efficiency Guidebook* defines the necessary components of a WUE program as four fundamental elements.

1. Planning requirements, which include collecting data, forecasting demand, evaluating WUE measures, calculating distribution system leakage, and implementing a WUE program to meet goals.
2. A distribution system leakage (DSL) standard of 10 percent or less based on a 3-year rolling average.
3. Goal setting and annual performance reporting on progress towards meeting WUE goals.

WATER USE EFFICIENCY PROGRAM

REGIONAL WATER USE EFFICIENCY EFFORTS

Throughout the past 10 years, beginning with the *2005 Interim Regional Water Forecast and Conservation Plan* (RWFCP), the Cities of Kennewick, Pasco, Richland, and West Richland (quad cities) have implemented water conservation plans to ensure that the region has a reliable supply of water and is using water in an efficient manner. The quad cities have been implementing individual WUE programs since 2007 that comply with the DOH WUE Rule.

The original combined WUE goals and objectives of the quad cities, developed in the 2005 RWFCP, have proven to be effective and will continue to be met through implementation of the WUE measures in each city's WUE program. These goals and objectives, as most recently presented in the 2016 RWFCP, are as follows.

- Inform customers of simple, effective water-wise activities.
- Develop a regional marketing campaign.
- Encourage customers to reduce water waste and become more water wise.
- Encourage commercial, industrial, and residential customers to use water wisely.
- Ensure all municipal activities and programs are water wise.
- Encourage wise water use to irrigate large park-like areas.
- Measure the net consumptive water use from the Columbia River.
- Perform a water balance for the region every 6 years as part of each city's water comprehensive plan update.
- Focus the conservation program on using water efficiently.

CITY OF KENNEWICK WATER USE EFFICIENCY PROGRAM

The City's current WUE program elements are summarized in this section.

Planning Requirements and WUE Program Activities

The City's water use data, demand forecasts, and other planning requirements are contained in **Chapter 2** of this Water Comprehensive Plan (WCP). The City is committed to continue collecting water use data beyond that presented in **Chapter 2** for evaluation of its WUE program and water use patterns, and for forecasting demands for future facilities. Consistent with WAC 246-290-810, the WUE program effectiveness will continue to be evaluated within each WCP update.

Recent WUE program activities have involved participation in regional efforts and City-led activities that are presented in the **Selected Measures** section of this chapter.

Water Use Efficiency Goals and the Public Process

Per WAC 246-290-830, WUE goals must be set through a public process and shall be evaluated and reestablished a minimum of every 6 years. The goals and objectives of the City's previous WUE program, which extends to the approval of this WCP, are as follows.

- Maintain annual average demand per capita below 170 gallons per day (gpd), based on the 6-year period between 2008 and 2013.

Results indicate the City is meeting the current WUE goals and objectives as the annual average demand per capita was 134 gpd in 2015. Water consumption per capita has decreased by 11 percent between 2008 (baseline for the City's 2010 WCP) and 2015.

Based on the success the City has had in achieving its DSL goals and objectives, new goals have been proposed to maintain low DSL levels. The proposed WUE goals for the 2016 to 2027 water system planning cycle are as follows.

- Reduce the water demand per capita by 1 percent each year through 2027, resulting in an average demand per capita of 119 gpd or lower in 2027.
- Increase awareness among all water users of the value and importance of conserving water, and of the methods available to achieve reductions in water use.

In compliance with the new WUE Rule, a public hearing was held on February 7, 2017, at a City Council meeting to present and discuss the new goals. Background on the City's proposed WUE program, water supply characteristics, water demand forecasts, and other elements were made available 2 weeks prior to the public forum date. The City Council affirmed the new goals on February 7, 2017.

Water Use Efficiency Program Evaluation and Performance Reporting

The City will continue to evaluate overall demand, per capita water use, and the amount of DSL on an annual basis (coinciding with the production of the Consumer Confidence Report (CCR)). The City will also evaluate the performance of its WUE program and implemented measures at this time by analyzing demand data and determining the long-term trend towards reducing water usage and meeting WUE goals. If the WUE program monitoring shows that progress towards meeting the WUE goals is not being accomplished, more rigorous WUE program implementation or additional WUE program items will be considered, along with a cost-effective evaluation of measures.

The City will continue to provide annual WUE performance reports to its consumers in the CCR, and detail the results of water use monitoring and progress towards achieving the system's WUE goals. A copy of the City's 2015 CCR is included in **Appendix K**. The City will comply with DOH Annual WUE Performance report requirements, due to DOH by July 1st of each year.

EVALUATION AND SELECTION OF WATER USE EFFICIENCY MEASURES

The City's evaluation of WUE measures and selected levels of implementation are presented within this section. The measures fall within three categories of implementation: 1) mandatory measures that must be implemented; 2) measures that must be evaluated; and 3) additional measures selected by the City that either must be evaluated or implemented.

The City served 23,801 water service connections in 2014, which is the base year of the City's WCP. Based on the number of connections, at least nine WUE measures must be evaluated or implemented. Measures that are mandatory cannot be credited towards the system's WUE measures. Since the City implements or plans on implementing all of the evaluated measures presented here, a cost-effective evaluation is not required.

Mandatory Measures

Source Meters

The volume of water produced by the system's sources must be measured using a source meter or other meter installed upstream of the distribution system. Source meters are currently installed and operating at each of the City's sources. The City tests source meters for proper operation on an annual basis, and calibrates the meters if needed. In 2014, the City verified that the source meters at the Ranney collectors and the Kennewick Water Treatment Plant met American Water Works Association standards. Any new sources installed in the future will be equipped with a source meter.

All interties that the City's water system shares with adjacent water systems are also metered. This includes seasonal and emergency interties.

City of Richland – Gage Boulevard	Emergency only, Two-way
City of Richland – Tapteal Drive	Emergency only, Two-way
Kennewick Irrigation District	
Elliot Lake Potable System	Supply, One-way, One location

Service Meters

All public water systems that supply water for municipal purposes must install individual service meters for all water users. Service meters are currently installed and operating at all connections throughout the distribution system. All future connections that are installed or activated will be equipped with a service meter.

Meter Calibration

The City must calibrate and maintain meters based on generally accepted industry standards and manufacturer information. The City has tested all large (2 inches and larger) meters on an annual basis over the last 5 years. As of 2014, 87 large meters were installed in the City's water system. Of the 87 large meters, 83 met the 95 percent or better accuracy target over the three flow ranges (low, medium, and high) used in the tests. Meters not meeting this goal were repaired, replaced, or scheduled for replacement.

The City repairs or replaces small (less than 2 inches) meters if they are discovered to be defective or not properly measuring water use. The City periodically replaces old meters with meters compatible with an automatic read system.

Water Loss Control Action Plan

To control leakage, systems that do not meet the DSL standard must implement a Water Loss Control Action Plan (WLCAP). The City's rolling 3-year average DSL was below 10.0 percent in

2014, based on the 3-year period of 2012 through 2014. Therefore, a WLCAP is not required to be implemented.

Customer Education

Annual customer education regarding the importance of using water efficiently is a required element of all WUE programs. Customer education is provided in each city's annual CCR to customers and includes information on the system's DSL, progress towards meeting WUE goals, and tips for customers on using water more efficiently. Additional customer education and outreach measures are identified in the **Selected Measures** section.

Measures That Must Be Evaluated

Rate Structure

Evaluation of rate structures to increase water demand efficiency is required (WAC 246-290-100(4)(j)(iv)), but actual implementation of a conservation rate structure counts as a WUE measure (WAC 246-290-810(4)(d)). The City's current utility rates are designed to discourage excessive water use, and are considered to be a uniform block rate structure. Although the rate structure discourages excessive use, the uniform block rate structure does not count as a WUE measure. The base rate for residential water for customers within the City limits (as of January 1, 2015) was \$20.54 in a 2-month billing cycle. Commercial customers within the City limits are billed varying base rates based on service meter size, ranging from \$39.71 for ¾-inch meters to \$469.03 for 6-inch meters. All customers are billed an additional \$1.167 per 100 cubic feet of consumption in the 2-month billing cycle. Commercial customers also receiving sewer service are billed an additional charge for every 100 cubic feet of water consumed in each 2-month billing cycle. The current rate structure is shown in **Table 4-1**.

Table 4-1
Rate Structure

Service Type	Customer Location	
	Inside City Limits	Outside City Limits
Base Fee		
Residential	\$20.54	\$45.19
Commercial ¾-inch	\$39.71	\$87.36
Commercial 1-inch	\$59.39	\$130.66
Commercial 1 ½-inch	\$105.62	\$232.36
Commercial 2-inch	\$138.76	\$305.27
Commercial 3-inch	\$211.39	\$465.06
Commercial 4-inch	\$310.46	\$683.01
Commercial 6-inch	\$469.03	\$1,031.87
Consumption per 100 Cubic Feet		
All Services	\$1.167	\$2.567

In 2016, the City is retaining the services of a financial consultant to perform a rate study on all customer classes.

Reclamation Opportunities

Reclaimed water is treated effluent from a wastewater treatment system that is suitable for a direct beneficial use or a controlled use that would not otherwise occur. The use of reclaimed water is regulated under Chapter 90.46 of the Revised Code of Washington (RCW). Water systems with 1,000 or more connections must evaluate reclamation opportunities (WAC 246-290-100(4)(f)(vii)), but actual use of reclaimed water counts as a WUE measure (WAC 246-290-810(4)(d)) or multiple WUE measures if the reclaimed water is used for multiple purposes.

The City has evaluated using reclaimed water based on the existing wastewater treatment plant effluent quality (Class D – Reclaimed Water), but no reclaimed water is currently used within the City's water service area.

Potential reclaimed water users could be the parks and/or school systems. Irrigating the parks and schools with reclaimed water would require significant financial and social backing. No parks or schools are located near the City's wastewater plant. A large amount of additional infrastructure is needed to get the water to the parks or schools, including crossing State Route 397. This would also mandate modifications to the plant to produce Class A water. Public acceptance of the use of reclaimed water in City parks and schools is uncertain.

Based on Ecology's Water Reclamation and Reuse Standards, the only currently feasible use for the City's wastewater treatment plant effluent is flushing of sanitary sewers. The City will continue to evaluate the feasibility of using reclaimed water for sanitary sewer flushing.

Selected Measures

The City has chosen to implement five different WUE measures, many of which are existing measures. For the purposes of water system planning in this document, the City's water billing classes have been combined into four different groups: single-family residential; multi-family residential; commercial/industrial; and municipal/institutional/other. If a single WUE measure is implemented for different customer classes, it counts as multiple WUE measures. Multiplying the nine different WUE measures across the customer classes in which they will be implemented, the City will implement a total of 17 WUE measures, as shown in **Table 4-2**. This exceeds the requirement of nine WUE measures based on the number of service connections.

Plumbing Retrofit Program

The City currently distributes water conservation items to all customer classes, including low flow showerheads, kitchen and bathroom faucet aerators, and toilet dye kits, at no cost to the customers.

Displays at Fairs and Events

The City currently participates in WUE education by providing information on the City website and in educational brochures and displays at the annual Benton-Franklin County Fair. Additionally, Pasco provides educational brochures and displays at the annual Home and Garden Show, which is attended by customers living in the quad cities.

Water Use Audits

The City currently has an audit program for large commercial and industrial users.

School Outreach

Schools within the City are provided WUE education programs presented through partnerships with the Franklin Conservation District. This outreach programs help students and teachers learn about water quality and WUE.

Water Bill Showing Consumption History

The City currently shows consumption history charts and information on water bills for all customer classes.

**Table 4-2
WUE Measures**

WUE Measure	Implementation Status			
Mandatory WUE Measures				
Source Meters Installed	✓			
Service Meters Installed	✓			
Meter Calibration Compliance	✓			
Water Loss Control Action Plan	Not Applicable			
Customer Education	✓			
WUE Measures That Must Be Evaluated				
Rate Structure	✓			
Reclamation Opportunities	✓			
Selected WUE Measures				
Measure Description	SF	MF	CI	MEO
Plumbing Retrofit Program	✓	✓	✓	✓
Displays at Fairs and Events	✓	✓	✓	✓
Water Use Audits			✓	
School Outreach	✓	✓	✓	✓
Water Bill Showing Consumption History	✓	✓	✓	✓
Total Selected WUE Measures	17			
SF = Single-family Residential MF = Multi-family Residential CI = Commerical/Industrial MEO = Municipal/Institutional/Other				

Water Use Efficiency Program Schedule and Budget

The WUE measures described above and selected for implementation by the City are summarized in **Table 4-3** with their corresponding schedule and budget. The successful implementation of this WUE program is expected to achieve the goal of an annual 1-percent reduction in water use per capita through 2025.

Table 4-3
WUE Program Schedule and Budget

WUE Measure	Schedule	Budget
Mandatory WUE Measures		
Source Meters Installed	Ongoing	O&M Funded
Service Meters Installed	Ongoing	O&M Funded
Meter Calibration Compliance	Ongoing	O&M Funded
Water Loss Control Action Plan	Not Applicable	Not Applicable
Customer Education	Ongoing	\$2,000/year
WUE Measures That Must Be Evaluated		
Rate Structure	Ongoing	Not Applicable
Reclamation Opportunities	Ongoing	Not Applicable
Selected WUE Measures		
Plumbing Retrofit Program	Ongoing	\$2,000/year
Displays at Fairs and Events	Ongoing	Regional Program
Water Use Audits	Ongoing	\$2,000/year
Rate Structure	Ongoing	Not Applicable
School Outreach	Ongoing	Regional Program
Water Bill Showing Consumption History	Ongoing	Not Applicable

O&M = operations and maintenance

DISTRIBUTION SYSTEM LEAKAGE

DSL in the City's water system is described and presented in **Chapter 2**. DSL for the last 3 years is as follows, with a current 3-year rolling average of 1.9 percent.

- 2012 DSL: 2.5 percent.
- 2013 DSL: -0.2 percent.
- 2014 DSL: 3.1 percent.

WATER RIGHTS SELF-ASSESSMENT

OVERVIEW

A water right is a legal authorization to use a specified amount of public water for specific beneficial purposes. The water right amount is expressed in terms of instantaneous diversion rate and annual withdrawal volume. Unless water use started before the applicable water code was enacted (1917 for surface water and 1945 for groundwater) and is documented by a water right claim or adjudicated certificate, Washington State law requires users of public water to receive approval from Ecology prior to actual water use. This approval is granted in the form of a water right permit or certificate. However, a state-issued water right is not required for certain uses of groundwater that are exempt from the permitting process, including the use of 5,000 gpd or less for domestic and industrial purposes, unlimited use for stock watering, and irrigation of ½ acre or less of lawn or non-commercial garden.

The process for obtaining a water right involves submitting a water right application that is reviewed by Ecology. If the request is approved, a water right is issued to allow for water use to commence. A water right permit provides permission to construct the necessary wells or diversions, pumps, and pipes to start using water. The water right permit remains in effect until the permit holder determines that their project is complete and they have used as much water as they will under the water right. At that time, the permit holder files a proof of appropriation form, which attests to the rate and volume of water used under the water right. A water right certificate is issued by Ecology following a proof of examination and determination that the amount of water put to beneficial use is consistent with the amount and conditions indicated on the water right permit.

A water right permit can only be issued by Ecology if the proposed use meets the following requirements.

- Water will be put to beneficial use.
- There will be no impairment to existing or senior rights.
- Water is physically and legally available for appropriation.
- Issuance of the requested water right will not be detrimental to the public interest.

During preparation of the report of examination, Ecology considers existing basin management plans, stream closures, minimum instream flows, hydraulic continuity (surface water interconnected to groundwater), utilization of existing water sources, water conservation, and availability of alternative water supplies, among other things. The water right decision process is increasingly becoming more complex and time consuming, due to the many competing interests for water, environmental issues, and regulatory requirements.

MUNICIPAL WATER LAW

The 2003 MWL (Second Engrossed Second Substitute House Bill 1338; Chapter 5, Laws of 2003; 58th Legislature; 2003 1st Special Session; Municipal Water Supply – Efficiency Requirements) clarified many outstanding questions related to water rights used to supply many water systems. The MWL clarified the definition of what use constitutes a municipal water right and who is a municipal water supplier. The MWL allowed changes to the water right place of use to occur via the approval

of the service area by DOH, as opposed to the previous method of the water right change application process with Ecology. The MWL states that the inchoate (unused) portion of a municipal water supply water right is in good standing if the original water right certificate was issued based on the administrative policy of requiring the pumps and pipes to be in place, but not requiring there to be actual beneficial use. This law was the subject of a lawsuit that questioned the constitutionality of portions of the law; however, on October 28, 2010, the Washington State Supreme Court unanimously ruled that all parts of the MWL are constitutional.

Ecology reissued Water Resources Program Policy 2030 in May 2012 that addressed the implementation of the MWL. This policy document was used to assist with determining if the City's water rights qualify as being for municipal water supply purposes.

Using the definitions provided by the MWL, it has been determined that all water rights held by the City are for municipal water supply purposes, as defined under RCW 90.03.015(4), since the water rights are used to serve 15 or more residential connections or are for governmental or governmental proprietary purposes. Since the water rights are for municipal water supply purposes, that makes the City a municipal water supplier as defined under RCW 90.03.015(3).

EXISTING POTABLE WATER RIGHTS

For its potable municipal supply system, the City currently utilizes one surface water certificate, four groundwater certificates, and one surface water permit. A summary of the City's water right information is presented below and in **Table 4-4**. Copies of the City's certificates and permits are included in **Appendix M**.

Table 4-4
Existing Potable Water Rights

Water Right	Document	Use	Source	Instantaneous Rate (gpm)			Annual Volume (afy)		
				Additive	Non-additive	Total	Additive	Non-additive	Total
GWC 93-D	Certificate	Municipal	WTP; Ranney Collector No. 5	400	0	400	70	0	70
GWC 94-D	Certificate	Municipal	WTP; Ranney Collector No. 5	1,000	0	1,000	450	0	450
GWC 1805-A	Certificate	Municipal	Ranney Collector Nos. 1, 2, and 3	4,950	0	4,950	4,800	0	4,800
GWC 3897-A	Certificate	Municipal	Ranney Collector Nos. 4 and 5	13,500	0	13,500	5,600	0	5,600
S4-25479C	Certificate	Municipal	WTP	25,000	0	25,000	5,280	10,400	15,680
S4-30976P ¹ (Phase 1)	Permit	Municipal	WTP; Ranney Collector Nos. 4 and 5; Columbia Park Wells	1,122	0	1,122	1,806.75	0	1,806.75
Water Right Total				45,972			18,006.75		

Notes:

(1) S4-30976P is jointly held by the Cities of Kennewick, Richland, Pasco, and West Richland. The first phase of 10 cfs (4,488 gpm) and 7,227 afy was the portion authorized to be utilized by the cities for municipal supply until additional mitigation can be secured to access future phases of the water right. The entire water right, of which one quarter is owned by the City, is equal to 178 cfs and 96,619 afy.

WTP = Water Treatment Plant

gpm = gallons per minute

cfs = cubic feet per second

afy = acre-feet per year

Ground Water Certificate 93-D

Pacific Power & Light Company filed Declaration 131 on February 27, 1946, to get pre-code groundwater use recognized. The information contained within this declaration was certificated by the Washington State Department of Conservation and Development (predecessor to Ecology). Ground Water Certificate (GWC) 93-D was issued to Pacific Power & Light Company, recognizing the use of water for municipal and domestic use within the Town of Kennewick, Benton County, Washington from a well located in Lot 2, Block 5 of Layton's Addition, with a priority date of November 4, 1944. The recognized rates were 400 gallons per minute (gpm) and 70 acre-feet per year (afy).

On July 9, 2012, the Benton County Water Conservancy Board (BCWCB) received an application for change from the City of Kennewick on GWC 93-D, which was assigned tracking number BENT-12-03 by the BCWCB and CG4-GWC093-D by Ecology. The change application requested to change the point of withdrawal to the aquifer storage and recovery (ASR) well. On October 1, 2012, the BCWCB approved the change as requested. On December 20, 2012, Ecology issued an order reversing the BCWCB decision and denying the change application. The reason for the denial included that the original point of withdrawal appeared to be completed in the Saddle Mountain Aquifer, while the ASR well is completed in the deeper Wanapum Formation, which in this area was considered to be a different body of public groundwater. Insufficient information was included to allow Ecology to make a tentative determination on the extent and validity of the water right; the impairment analysis was incomplete, which would not allow Ecology to come to a conclusion, and there were other technical deficiencies. The denial was appealed. The appeal was assigned Pollution Control Hearings Board (PCHB) Case No. 13-009. A settlement agreement was reached between the parties; in response, Ecology issued an order on October 3, 2013, that modified the original BCWCB decision and superseded the prior Ecology denial.

The current attributes of this certificate are that it is held by the City of Kennewick, with a priority date of November 4, 1944, for municipal and domestic use, year round, at rates of 400 gpm and 70 afy (22,809,570 gallons per year), with points of withdrawal/diversion that include the original Layton's Addition Well No. 1 in Section 6, Township 8 North, Range 30 East W.M. (no longer in use), the surface water treatment plant in Section 31, Township 9 North, Range 30 East W.M., and Ranney Well No. 5 located in Government Lots 1 and 2, Section 35, Township 9 North, Range 29 East W.M.

Ground Water Certificate 94-D

Pacific Power & Light Company filed declaration 132 on February 27, 1946, to get pre-code groundwater use recognized. The information contained within this declaration was certificated by the Washington State Department of Conservation and Development. GWC 94-D was issued to Pacific Power & Light Company recognizing the use of water for municipal supply within the Town of Kennewick, Benton County, Washington from a well located in Lot 6, Block 5 of Layton's Addition, with a priority date of March 19, 1945. The recognized rates were 1,000 gpm and 450 afy.

On July 9, 2012, the BCWCB received an application for change from the City of Kennewick on GWC 94-D, which was assigned tracking number BENT-12-04 by the BCWCB and CG4-GWC094-D by Ecology. The change application requested to change the point of withdrawal to the ASR well. On October 1, 2012, the BCWCB approved the change as requested. On December 20, 2012, Ecology issued an order reversing the BCWCB decision and denying the change application. The reason for the denial included that the original point of withdrawal appeared to be completed in the

Saddle Mountain Aquifer, while the ASR well is completed in the deeper Wanapum Formation, which was considered to be a different body of public groundwater. Insufficient information was included to allow Ecology to make a tentative determination on the extent and validity of the water right; the impairment analysis was incomplete, which would not allow Ecology to come to a conclusion, and there were other technical deficiencies. The denial was appealed. The appeal was assigned PCHB Case No. 13-010. A settlement agreement was reached between the parties; in response, Ecology issued an order on October 3, 2013, that modified the original BCWCB decision and superseded the prior Ecology denial.

The current attributes of this certificate are that it is held by the City of Kennewick, with a priority date of November 4, 1944, for municipal and domestic use, year round, at rates of 1,000 gpm and 450 afy (146,632,950 gallons per year), with points of withdrawal/diversion that include the original Layton's Addition Well No. 2 in Section 6, Township 8 North, Range 30 East W.M. (no longer in use), the surface water treatment plant in Section 31, Township 9 North, Range 30 East W.M., and Ranney Well No. 5 located in Government Lots 1 and 2, Section 35, Township 9 North, Range 29 East W.M.

Ground Water Certificate 1805-A

This groundwater certificate has been held by the City from application through certification.

The current attributes of this certificate are that it is held by the City of Kennewick, with a priority date of February 23, 1950, for municipal water supply, year round, at rate of 4,950 gpm and 4,800 afy (1,564,084,800 gallons per year), with four wells and an infiltration trench located in Government Lot 2, Section 31, Township 9 North, Range 30 East W.M.

The City facilities that correlate with the point of withdrawal location include Ranney Well Nos. 1, 2, and 3.

Ground Water Certificate 3897-A

This groundwater certificate has been held by the City from application through certification.

The current attributes of this certificate are that it is held by the City of Kennewick, with a priority date of February 27, 1957, for municipal water supply, year round, at rate of 13,500 gpm and 5,600 afy (1,824,765,600 gallons per year), with two horizontal collectors (Ranney Wells) located in Government Lot 1, Section 35, Township 9 North, Range 29 East W.M.

The City facilities that correlate with the point of withdrawal location include Ranney Well Nos. 4 and 5.

Surface Water Certificate S4-25479C

This surface water certificate has been held by the City from application through certification.

The current attributes of this certificate are that it is held by the City of Kennewick, with a priority date of April 10, 1977, for municipal water supply, year round, at rate of 55.7 cubic feet per second (25,000 gpm) and 15,680 afy (5,109,343,680 gallons per year), from the Columbia River in the SE ¼ Section 31, Township 9 North, Range 30 East W.M., which is consistent with the location of the City's surface water treatment plant.

The certificate contains a provision that states:

A total of 10,400 acre-feet per year has been granted under previous certificate; therefore, 5,280 acre-feet per year of the total allowed under this certificate will be a primary right; 10,400 acre-feet per year will be a supplemental supply and may be used in conjunction with, or as an alternate supply, to the existing rights so long as the total annual quantity from all sources does not exceed 15,680 acre-feet per year.

The volume identified as being granted under previous certificates, 10,400 afy, is the sum of the annual volumes allocated under GWC 1805-A and GWC 3897-A held by the City, which allow for withdrawal from Ranney Collector Nos. 1, 2, 3, 4, and 5. Based on our interpretation of the use of supplemental supply in this provision, combined with the guidance provided in Ecology Water Resources Program Policy 1040, it has been determined that this water right is partially additive and partially alternate to GWC 1085-A and GWC 3897-A. The rates that are additive, under this water right, include the entire instantaneous rate of 55.7 cubic feet per second (cfs) and 5,280 afy (1,720,493,280 gallons per year) of the annual volume granted. So, under this water right the City has the option to divert the entire 15,680 afy from the Columbia River, which would not allow any water to be withdrawn from the Ranney Collectors under GWC 1805-A and GWC 3897-A, or it can elect to divert 5,280 afy from the Columbia River at the surface water treatment plant, which would allow the full water rights under GWC 1805-A and GWC 3897-A to be withdrawn from the Ranney Collectors, or it can opt for any ratio between those two end points.

The additive annual volume of 5,280 afy is considered to be a portion of the volume of water reserved by the adoption of the John Day/McNary Basin Plan, Chapter 173-531 WAC, which is now Chapter 173-531A WAC.

The City facilities that correlate with the point of diversion location include the City water treatment plant, which diverts water directly from the Columbia River.

Surface Water Permit S4-30976P

The Cities of Kennewick, Richland, Pasco, and West Richland jointly applied for and were granted a surface water right. This new water right was assigned tracking number S4-30976. The permit has a priority date of September 23, 1991, and was issued for 178 cfs and 96,619 afy for municipal supply. The City diverts its portion of the permit from the Kennewick Filter Plant, Ranney Wells, and Army Corps of Engineers (COE) – Columbia Park facilities.

This permit was issued on September 15, 2003, and is commonly referred to as the Quad Cities Permit. This permit was the first municipal water right issued from the Columbia River after a long moratorium. The permit has extensive provisions and mitigation requirements, which included the creation of the Regional Water Forecast and Conservation Plan by the quad cities (**Appendix N**).

In order to mitigate low-flow conditions on the Columbia River, Ecology required that the consumptive use under the permit be mitigated when actual river discharge dropped below identified levels. Ecology also specified that the cities' access to water under the permit would be contingent upon there being sufficient mitigation available. For this reason, the permit is designed to be issued in phases, up to the maximum rates of 178 cfs and 96,619 afy. The first phase was issued for 10 cfs and 7,227 afy and assigned a priority date of June 24, 1980, pursuant to WAC 173-531A-050(3). For the first phase, the City's portion was 2.5 cfs and 1,806.75 afy (588,731,294 gallons per year). See the 2014 RWFCP for more details on this permit.

Potable Supply System Conclusions

Since these water rights are all for municipal water supply purposes, the place of use for the water rights are automatically the service area described in this WCP.

The water right certificates and permits for the potable distribution system are included in **Appendix M**. Water Right Self-Assessment Forms for existing, 6-year, 10-year, and 20-year forecasted use are included in **Appendix O**. The basis for the demand projections and analyses in other chapters of this WCP utilize actual 2015 supply data. The Water Right Self-Assessment Forms were prepared in early 2016 prior to inclusion of year-end 2015 data, and are based on projected 2015 supply and demand data. The actual 2015 ADD was calculated to be less than the previously projected ADD used as the basis for the existing and future Water Right Self-Assessment Forms. Since the demand projections and the analyses in other chapters utilize actual 2015 data, the consumption data presented in the existing and future Water Right Self-Assessment Forms is more conservative than what would be calculated based on actual 2015 demands.

NEW WATER RIGHT APPLICATIONS

The City owns, either in whole or in part, portions of three water right applications that are pending before Ecology. One application requests a new surface water right; the other two applications (one groundwater and one reservoir) are associated with the City's ASR project at the Southridge site.

S4-33044(B)A

The City, in conjunction with the Cities of Richland, Pasco, and West Richland, applied for a new joint water right from the Columbia River that was assigned tracking number S4-33044. The water right application has a priority date of November 28, 2011, and requested 165 cfs and 86,983 afy for municipal supply. The City requested to divert its portion from the Kennewick Filter Plant, Ranney Wells, and Army COE – Columbia Park. The instantaneous rate and annual volume requested are equal to the amount of municipal water remaining under S4-30976P beyond the rates that the cities were promised would be mitigated by Ecology in the 2011 Memorandum of Agreement (MOA). The water right was filed to take advantage of the water that was made available for municipal and industrial use through Ecology's Office of Columbia River, Lake Roosevelt Incremental Storage Release Program. Under this program, any entity receiving a water right is required to pay Ecology \$35 per acre-foot per year for the life of the water right to offset the costs of developing the supply.

On October 16, 2015, the four cities requested that Ecology administratively split the application such that the City of Pasco was assigned 6.9 cfs and 5,000 afy under the (A) portion of the application, and the four cities were left with 158.1 cfs and 81,983 afy under the (B) portion of the application. This split was necessary since the City of Pasco needs to proceed with having the application processed in order to acquire additional water rights to meet demand beyond its existing water rights.

Ecology has not yet made a final determination on either the (A) or (B) portions of this application.

R4-35237A

The City applied for this reservoir application to store water in the subsurface under an ASR project at the Southridge site. The application was filed based on item 5a in the "Kennewick Underground Artificial (Aquifer) Storage and Recovery (ASR) Project Development Memorandum of

Understanding” (MOU) that was signed between the City and Ecology in January 2008 (**Appendix P**).

The application has a priority date of May 15, 2009, and requests to recharge at a rate of up to 900 gpm to store up to 714 acre-feet (232,657,614 gallons) in the Columbia River Basalt Aquifer System from a well or wells located in SE ¼ Section 17, Township 8 North, Range 29 East W.M. Recharge was proposed to occur between the period of October 15th to June 15th, with extraction occurring during the summer months for municipal supply.

On October 8, 2009, a preliminary permit was issued to the City to drill a test well to assess the feasibility of ASR under this application. This preliminary permit was in effect through September 30, 2010.

On March 14, 2011, a preliminary permit was issued to the City to drill a test well and conduct aquifer testing to assess the feasibility of ASR under this application. This preliminary permit was in effect through March 1, 2013.

On February 10, 2014, a preliminary permit was issued to the City to conduct recharge and recovery testing as part of the completion of construction of infrastructure related to ASR under this reservoir application. This preliminary permit was in effect through January 1, 2015. The target reservoir was identified as the Priest Rapids Member of the Wanapum Basalt Formation within the Columbia River Basalt Aquifer System.

On March 14, 2014, a preliminary permit was issued to the City to conduct recharge and recovery testing as part of the pilot testing for ASR under the reservoir application. This preliminary permit covered activities through January 1, 2015.

On July 1, 2014, a temporary authorization for the beneficial use of water for municipal supply under reservoir application no. R4-35237 was issued to the City. This temporary permit covered operation of the ASR project from July 1, 2014 through October 15, 2015. This temporary permit placed stipulations on the source of the water being injected, when water could be injected and retrieved, the rates at which water could be injected and retrieved, what monitoring needed to be performed during the testing, and what information had to be reported to Ecology.

On April 3, 2015, a temporary authorization for the beneficial use of water for municipal supply under reservoir application no. R4-35237 was issued to the City. This temporary permit covered operation of the ASR project from April 3, 2015 through January 1, 2016. This temporary permit placed stipulations on the source of the water being injected, when water could be injected and retrieved, the rates at which water could be injected and retrieved, the duration of storage between recharge and recovery, what monitoring needed to be performed during the testing, and what information had to be reported to Ecology.

Under the preliminary and temporary permits, the City has installed an ASR well (ASR-1) and an observation well. Pumping tests have been performed on the ASR well to obtain information about the aquifer properties, including the transmissivity of the aquifer and the storage coefficient. Treated water from the City’s system has been used to recharge the aquifer and has been recovered using the ASR well. Starting in 2015, the water that is recovered from the ASR well is now able to be utilized for meeting demand within the water system.

In 2015, the City recharged approximately 243 acre-feet of water from the ASR well and withdrew 192 acre-feet after a storage period. The difference between the water added and withdrawn was 51 acre-feet. Unfortunately, for the City, the 51 acre-feet is counted against its existing water rights,

but could not be used. If the recovery percentage is too low, it will reduce the usefulness of the ASR project as a source of supply, as the non-recoverable water will become a new demand on the water system.

According to the 2008 MOU, the City may need to donate a perfected portion of S4-25479C to the Trust Water Right Program to be managed by Ecology consistent with the Columbia River Program, once the ASR project is fully permitted. Donation of this portion of an existing water right to trust will reduce the ability of the City to divert that water directly from the Columbia River. It is currently unknown how large the donation will need to be. In the MOU, Ecology indicated that it planned on using its portion of that trust water right to satisfy the mitigation requirements under the first phase of the Quad Cities Permit (S4-30976). Since the first phase has already been fully mitigated by Ecology, the City is unsure what Ecology would do with this trust water right now.

Ecology has not yet made a final determination on this reservoir (ASR) application.

G4-35338A

The City applied for this groundwater right from the same well that is to be used as part of a new ASR project at the Southridge site. The application was filed based on item 5c in the “Kennewick Underground Artificial (Aquifer) Storage and Recovery (ASR) Project Development Memorandum of Understanding” that was signed between the City and Ecology in January 2008 (**Appendix P**).

The application has a priority date of June 1, 2010, and requests 2,500 gpm from a well located in the NE ¼ SE ¼ Section 17, Township 8 North, Range 29 East W.M. The name of this well is ASR-1. This application is intended to balance the City’s pre-ASR and post-ASR water right portfolio in the event that the ASR project is approved, which will require the City to place a portion of its existing perfected surface water rights into the Trust Water Rights Program. The annual volume that could be granted will match the volume placed into the Trust Water Rights Program.

Ecology has not yet made a final determination on this groundwater application.

NON-POTABLE WATER RIGHTS HELD BY THE CITY

The City holds and utilizes one water right that is not connected to its potable system.

G4-29926C

This water right has a priority date of February 9, 1989 and was originally applied for and issued to Cascade Columbia Foods, Ltd. The source of water is a basalt well located within the place of use. It was issued for the purpose of industrial vegetable washing with disposal to a spray field with an area of approximately 2 acres. In 2005, the place of use was obtained by the City and is now occupied by the City of Kennewick Frost Municipal Building. The water right certificate was issued to the City on July 13, 2011, for irrigation of 1.6 acres, during the period of April 1st through December 31st, at rates of 100 gpm and 7.2 afy (2,346,127 gallons per year).

Since this irrigation system is separate from the regional municipal system, the water right and irrigation use will not be considered farther in this WCP.

POTABLE WATER SUPPLY EVALUATION

An evaluation of the City's existing water rights was performed to determine the sufficiency of the water rights to meet both existing and future water demands. **Table 4-5** compares the combined maximum instantaneous water right amounts of the sources with the peak day demand of the system, and the combined maximum annual water right amounts of the sources with the average day demand of the system. As shown in the table, the City has sufficient water rights (both instantaneous and annual amounts) to meet the demands of its existing customers.

Table 4-5
Existing Potable Water Rights Evaluation

Description	Instantaneous Rights / Maximum Day Demand	Annual Rights / Average Day Demand	
	(gpm)	(acre-feet)	(gpm)
Total Water Rights	45,972	18,007	11,163
Existing (2015) Water Demand	14,311	12,308	7,630
Surplus (or Deficient) Rights	31,661	5,699	3,533

Table 4-6 summarizes the results of the future water rights evaluation, which compares the water rights of the existing sources with the system's future 6-year, 10-year, 12-year, and 20-year demand projections. The analysis considered future demand projections with and without water use reductions from the City's planned WUE efforts, as shown in the table. The results of the future water rights evaluation indicate the City has sufficient water rights to meet the demands through the year 2035.

**Table 4-6
Future Potable Water Rights Evaluation**

Description	Instantaneous Rights / Maximum Day Demand	Annual Rights / Average Day Demand	
	(gpm)	(acre-feet)	(gpm)
Year 2021 (+6 years) Without Conservation			
Total Water Rights	45,972	18,007	11,163
Projected Water Demand	15,490	13,323	8,259
Surplus (or Deficient) Rights	30,482	4,684	2,904
Year 2025 (+10 years) Without Conservation			
Total Water Rights	45,972	18,007	11,163
Projected Water Demand	16,419	14,121	8,754
Surplus (or Deficient) Rights	29,553	3,886	2,409
Year 2027 (+12 years) Without Conservation			
Total Water Rights	45,972	18,007	11,163
Projected Water Demand	16,883	14,520	9,002
Surplus (or Deficient) Rights	29,089	3,486	2,161
Year 2035 (+20 years) Without Conservation			
Total Water Rights	45,972	18,007	11,163
Projected Water Demand	18,808	16,175	10,028
Surplus (or Deficient) Rights	27,164	1,831	1,135
Year 2021 (+6 years) With Conservation			
Total Water Rights	45,972	18,007	11,163
Projected Water Demand	14,804	12,732	7,894
Surplus (or Deficient) Rights	31,168	5,274	3,270
Year 2025 (+10 years) With Conservation			
Total Water Rights	45,972	18,007	11,163
Projected Water Demand	15,073	12,964	8,037
Surplus (or Deficient) Rights	30,899	5,043	3,126
Year 2027 (+12 years) With Conservation			
Total Water Rights	45,972	18,007	11,163
Projected Water Demand	15,191	13,065	8,100
Surplus (or Deficient) Rights	30,781	4,942	3,064
Year 2035 (+20 years) With Conservation			
Total Water Rights	45,972	18,007	11,163
Projected Water Demand	16,923	14,554	9,023
Surplus (or Deficient) Rights	29,049	3,452	2,140

WATER RIGHT RECOMMENDATIONS

Although the City has sufficient water rights to supply the water system through 2035 and beyond, some administrative paperwork and facility improvements are necessary to fully utilize the City's existing water rights.

No changes to the City's annual or instantaneous water right quantities are anticipated as a result of PFAS contamination detected in the RC4 and RC5 sources in 2023 and 2024.

A water right change application should be prepared to change the points of withdrawal to GWC 1805-A since Ranney Well Nos. 1, 2, and 3 are no longer used. It is recommended that the City change the points of withdrawal to Ranney Well Nos. 4 and 5. This water right change should not be controversial and will remedy the 2015 issue of exceeding the annual volume from these two Ranney Wells. Even though the annual volume granted under GWC 1805-A can be diverted from the Columbia River at the City's treatment plant under S4-25479C, the instantaneous rate authorized under GWC 1805-A cannot be utilized to meet demand unless the point of withdrawal is changed to include a new source.

On certificate S4-25479C, a request should be made to Ecology to strike the metes and bounds description of the diversion provided under the "Approximate Location of Diversion-Withdrawal" in the water right file since it is not located in the correct quarter section referenced and does not match the actual location of the point of diversion. This language appears to be left over from the originally conceived diversion location, which was changed long ago by Ecology through a water right change process.

Continue pilot testing of the Southridge ASR facility. Discuss the 2008 MOU trust water right donation implications of fully permitting this project with Ecology.

Work jointly with the Cities of Richland, Pasco, and West Richland to identify opportunities for obtaining water rights that can be used as mitigation under permit G4-30976P.

WATER SUPPLY RELIABILITY ANALYSIS

SOURCE OF SUPPLY ANALYSIS

The City's existing active sources include Ranney Well Nos. 4 and 5, and the City's Columbia River surface water treatment plant, which have adequate capacity to meet the existing, 6-year (2021), and 10-year (2025) demand requirements of the water system. Additional source capacity is needed to meet the projected demands beyond 2025. The City is currently performing ongoing testing of an ASR well, which would provide the water system sufficient source capacity beyond the 10-year (2025) planning period. The City is planning to evaluate an expansion of the Columbia River water treatment plant to meet the projected 20-year (2035) source capacity requirements.

5 | SOURCE WATER PROTECTION

INTRODUCTION

The two basic objectives of a water system are to provide a sufficient quantity of water to meet customer usage demands and to provide high-quality water. **Chapter 3** discusses the City of Kennewick's (City) ability to supply a sufficient quantity of water and identifies future source requirements. This chapter discusses the City's ability to protect the existing sources from contamination, and to continue providing high-quality water to its customers.

All purveyors of water systems using surface water or groundwater under the direct influence of surface water (GWI) sources are required to develop and implement a watershed control program. In addition, all federally defined Group A public water systems that use groundwater as their source are required to develop and implement a wellhead protection (WHP) program. The City's Columbia River water treatment plant (WTP) is subject to the watershed control program requirements. The City's Ranney Wells and aquifer storage recovery (ASR) well, which is currently putting water to beneficial use as part of the testing phase to determine the well's feasibility, are subject to the WHP program requirements. The City's Water Facilities Inventory (WFI) report presents the City's active potable water sources, and is presented in **Appendix Q**.

WATERSHED CONTROL PROGRAM

Purveyors of water systems using surface water or GWI sources are required to develop and implement a watershed control program. The City's water supply is provided surface water from the Columbia River. To protect water supplies and prevent source water contamination, the Washington State Department of Health (DOH) requires purveyors of surface water or GWI sources to prepare a watershed control program as a component of the Water Comprehensive Plan (WCP). A copy of the 2008 *Water Resource Inventory Area (WRIA) 31 Watershed Management Plan* is contained in **Appendix I**, which serves as the watershed control program for the City. The watershed control program contains the following elements, as required by Washington Administrative Code (WAC) 246-290-135. A brief summary of the information presented in the City's watershed control program is presented in the subsequent sections.

- A description of the watershed that includes its location, hydrology, land ownership, and identification of activities that may have a negative impact on source water quality.
- An inventory of all potential sources of surface water contamination, including the locations of owners/operators located within the watershed that have a significant potential to contaminate the source water quality.
- Watershed control measures that include documentation of ownership and relative written agreements, as well as monitoring activities and water quality.
- System operation, source vulnerability, and emergency provisions.
- Documentation of water quality trends.

DESCRIPTION OF THE WATERSHED

The City is located in Benton County, Washington, near the confluence of the Columbia, Snake, and Yakima Rivers. The City's watershed is the Rock-Glade Watershed, identified as WRIA 31, which includes portions of Benton, Klickitat, and Yakima counties. WRIA 31 encompasses approximately 1,594 square miles, and is approximately bound by the City on the east, the John Day Dam on the west, the Horse Heaven Hills on the north, and the Columbia River at the Washington and Oregon border to the south. The Columbia River is the primary water supply for WRIA 31. Although the City is within WRIA 31 and can play a role in protecting the watershed, the Columbia River incorporates a very large watershed upstream of the City's sources and WRIA 31, and could be contaminated by numerous sources over which the City has no control or jurisdiction.

POTENTIAL SOURCES OF SURFACE WATER CONTAMINATION

An essential element of a watershed control program is an inventory of all potential sources of contamination throughout delineated WHP and watershed control areas. The purpose of the inventory is to identify past, present, and proposed activities that may pose a threat to the sources of water supply.

The Washington State Department of Ecology (Ecology) maintains a facility/site database online that lists facilities and sites that could pollute the air or water, including:

- State clean-up sites;
- Federal superfund sites;
- Hazardous waste generators;
- Solid waste facilities;
- Underground storage tanks; and
- Enforcement.

A list of each potential source of contamination within WRIA 31 is contained in **Appendix I**, as is a figure presenting the location of each potential contamination source within the City's water service area.

SOURCE VULNERABILITY

The City is highly dependent on the Columbia River for its water supply, which makes it vulnerable to water quality contamination. The City's current use of its ASR Well eases its reliance on the Columbia River and reduces the possibility that a water contamination event in the Columbia River will impact the City's ability to supply its water system. Additional information regarding the City's source vulnerability is presented in Section 6.2 of **Appendix I**.

EMERGENCY PROVISIONS

In the event of a surface water contamination event that renders water unsuitable for potable use, the City will implement the following emergency response.

1. Shut down the WTP, and obtain water quality samples.

2. Notify DOH of the surface water contamination.
3. Notify all customers of the problem and instruct them to boil all water to be used for consumption and cooking, if boiling is effective for the type of contamination.
4. Close the appropriate distribution and transmission main valves to isolate the area of contamination within the distribution system.
5. Isolate booster pump station and reservoir facilities, as needed, to prevent the spread of contamination within the distribution system.
6. Analyze water quality of water within reservoirs and dispose of properly, if contaminated.
7. Disinfect reservoirs, water treatment plant and water mains, as necessary, to remove any contaminated residuals, if disinfection is effective for the contamination type.
8. Adjust control of system facilities, as necessary, to provide supply from the Ranney Wells, ASR Well, or the interties with the City of Richland provided that these sources have not been contaminated.
9. Flush and disinfect the water treatment plant as needed to remove contaminant from source water.
10. Monitor water quality at the water treatment plant and investigate cause of contamination.
11. Implement water use reduction measures, as necessary, to ensure an adequate supply of water.

WELLHEAD PROTECTION PROGRAM

The quality of drinking water in the United States is regulated by the Environmental Protection Agency (EPA). Under provisions of the Safe Drinking Water Act (SDWA), the EPA is allowed to delegate primary enforcement responsibility for water quality control to each state. In the State of Washington, the DOH is the agency responsible for implementing and enforcing the drinking water regulations. For the state to maintain primacy (delegated authority to implement requirements) under the SDWA, it must adopt drinking water regulations that are at least as stringent as the federal regulations. To meet these requirements, the state has published drinking water regulations that are contained in Chapter 246-290 WAC.

Section 1428 of the 1986 SDWA Amendments mandates that each state develops a WHP program. The Washington State mandate for WHP and the required elements of a WHP program are contained in WAC 246-290-135 – Source Protection, which became effective in July of 1994. In Washington State, the DOH is the lead agency for the development and administration of the state's WHP program.

The purpose of the WHP program is to provide an organized approach to effectively protect drinking water supplies from contamination. The program seeks to identify and manage potential contaminant sources near public water supply wells to prevent future contamination. An effective WHP program safeguards the health of residents, employees, visitors, and all other water users, and avoids negative financial impacts associated with contamination. To ensure a safe, quality water supply and avoid additional costs, it is necessary to protect groundwater at its source. The WHP program is a straightforward and cost-effective method to accomplish this goal.

The City's WHP for the Ranney Wells was prepared in January 2007 by Golder Associates. The ASR Well was prepared in October 2013 by Golder Associates. The WHP for both the Ranney Wells and the ASR Well are contained in **Appendix J**. The WHPs contain the following required elements.

- Documentation and notification to all owners/operators of known and potential sources of contamination within the wellhead protection area (WHPA).
- Notification to regulatory agencies and local governments of the defined boundaries of the WHPAs and the findings of the contaminant source inventory (completed as part of this WCP).
- Coordination with local emergency spill responders (i.e., police, fire, and health departments) regarding WHPA boundaries, source susceptibility, and contingency plans.
- Management strategy for the sanitary control area of the well.
- Public education and outreach presenting wellhead safety and the direct impact employees and residents with the WHPA can have on the quality of groundwater.
- Emergency and spill response plan to be implemented in the event of a hazardous spill event within the WHPA.

6 | OPERATIONS AND MAINTENANCE

WATER SYSTEM MANAGEMENT AND PERSONNEL

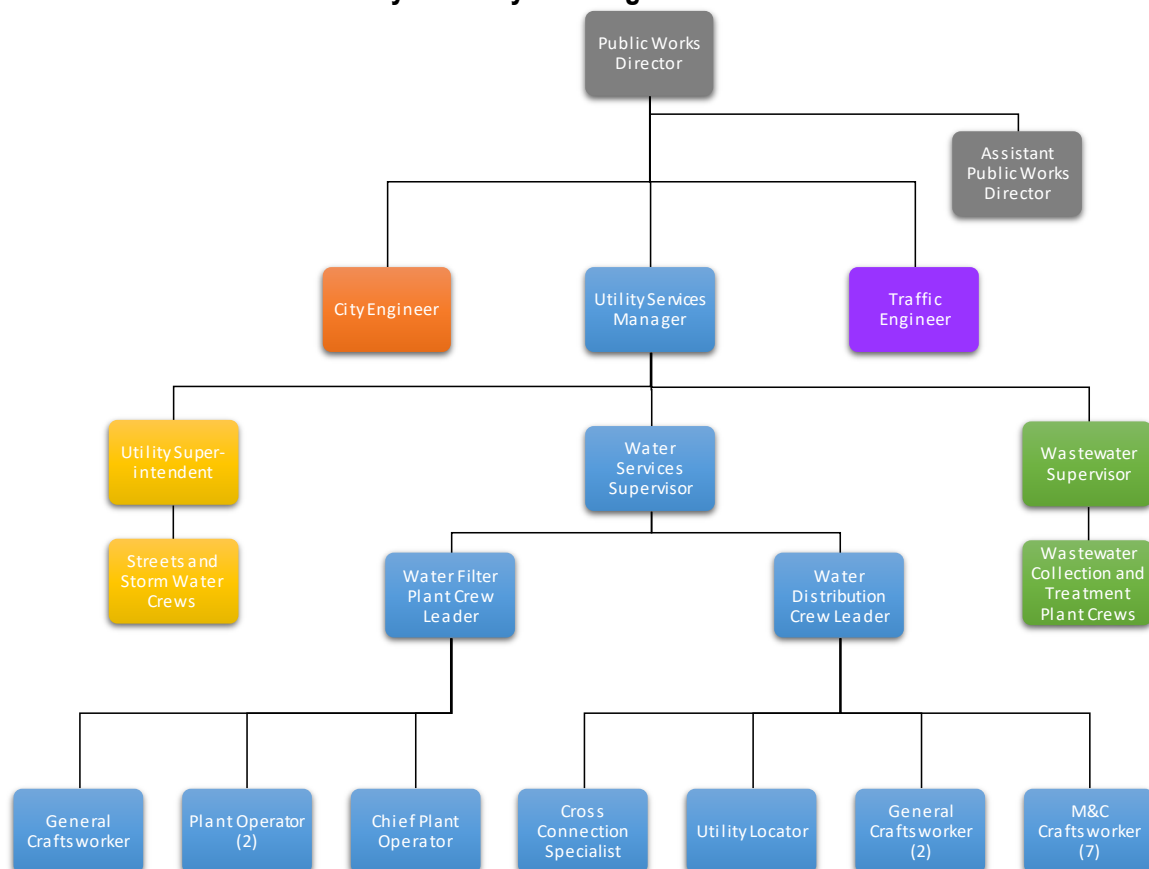
GENERAL POLICIES

The City of Kennewick's (City) general policies are established by a seven-member City Council in coordination with the Mayor. Policy priorities include the protection of public health and welfare, regulatory compliance, and sound fiscal management of the City. In addition, the City Council and Mayor hire a City Administrator to oversee various departments and functions. **Chapter 1** presents more detailed information on the water system ownership and management.

STRUCTURE

The City consists of several departments, including the Public Works Department. The Mayor and City Administrator have appointed Mr. Cary Roe, P.E., to direct the City's Public Works Department. The City's Public Works Department organizational structure, with an emphasis on the water system personnel, is shown in **Chart 6-1**.

Chart 6-1
City Water System Organizational Structure



OPERATOR CERTIFICATION

Under Washington Administrative Code (WAC) 256-292-040, the City's distribution system and water treatment plant are both currently classified as Group 4, requiring the City to have at least one Water Distribution Manager (WDM) and one Water Treatment Plant Operator (WTPO) classified at a level equal to or higher than the water system's classification. The WDM and WTPO can be the same person. The operator in charge during an operating shift shall have a minimum classification of one level lower than the classification of the distribution system or treatment plant's highest class.

The City's water system is also required to have a Cross-connection Control Specialist (CCS) responsible for the cross-connection control program, and a certified backflow assembly tester (BAT) for inspecting, testing, and monitoring backflow prevention assemblies. **Table 6-1** shows the current certifications of the City's water system operations and maintenance staff. The City supports the scheduling and training necessary to ensure that all applicable operations and maintenance staff meet professional growth requirements.

Table 6-1
Water Personnel and Certificates

Personnel	Water System Certifications		
	WTPO	WDM	Other
Luke Freeman	4	4	CCS
Jacob Hickman	3		BAT, CCS
Brian Brittain	3		BAT, CCS
Kevin Kloft	3		
Allen Bolt		4	CCS
Larry Jenneings			
William Magelsen			
Robert Plucker			BAT, CCS
Michael Hanson			
Robert Beppele			
Trevor Brain			
Tyrel Davis			
William Hansford Jr			
Jeremy Lustig			
Bryan Garza			
Darrell Buck			
Dustin Gerlach			
Gregorio Mendoza			

NORMAL OPERATIONS

ROUTINE OPERATIONS

Routine operations involve analysis, formulation, and implementation of procedures to ensure that the facilities are functioning efficiently and meeting pressure requirements and other demands of the system. The City has written procedures for major activities. The procedures outline customer notification, locates, and tasks to perform the various functions of the division.

PREVENTIVE MAINTENANCE

Preventive maintenance is based on regular and frequent visits to the various facilities with scheduled routine inspections and tasks performed as part of the maintenance program. Information is recorded, and any necessary work is noted and scheduled accordingly. Materials required for maintenance are handled by the City's Purchasing Department or put out to bid, depending on the material. Maintenance schedules that meet or exceed manufacturers' recommendations have been established for all critical components in the water system. The City's maintenance procedures are exceptional, with repairs being made promptly, ensuring customers receive high-quality water service with limited interruptions. The preventive maintenance procedures, as well as the normal and emergency operations of the utility, are described in the later in this chapter.

STAFFING

The hours of labor and supervisory activity required to effectively execute the ongoing maintenance and operations schedules form the basis for determining adequate staffing levels. The amount of time annually available for each staff member for operations and preventive maintenance of the water system is shown in **Table 6-2**.

Table 6-2
Time Available Per Person Per Year

Description	Annual Hours
Beginning Hours Available	2,080
Less average vacation of 3 weeks per year	-120
Less average sick leave of 2 weeks per year	-80
Less holidays of 10 days per year	-80
Less average training of 40 hours per year	-40
Less average small tasks other than above of 1 hour per day	-220
Net Available Hours Per Year Per Person	1,540

The current staff includes management and supervisory personnel with partial time allocated to the water system, and water treatment plant operators and maintenance workers engaged in operating and maintaining the water system. There are currently 18 full-time staff assigned to the water system, as shown in **Chart 6-1**. The Public Works Director, Assistant Public Works Director, City Engineer, and Utility Services Manager are involved in other activities and can only partially devote time to the water system.

The City's water system operations and maintenance includes the City's water treatment plant, both Ranney wells, the aquifer storage and recovery (ASR) Well, 13 reservoirs, 11 booster pumps stations, 12 pressure reducing valve (PRV) stations, 2 interties, and a telemetry system. In addition, maintenance is performed on the distribution system, including pipelines, valves, hydrants, meters, and service connections. The estimated hours of work required to achieve optimum operation and maintenance of the water system is shown in **Table 6-3**. The table identifies the staffing time for maintenance tasks, operational tasks, capital improvements, and construction of water system facilities. The upper section of the table identifies the staffing time requirements for recommended preventive maintenance tasks, and the lower section identifies the staffing time requirements for recommended operations tasks. The estimates of time required for each component are based on a composite of similarly sized utilities in the region that are considered to have a responsible preventive and corrective water system maintenance program.

To achieve the level of operations and maintenance shown in **Table 6-3**, approximately 20.9 full-time personnel are required for the water system alone. The City's current available water system staff is slightly inadequate meet these requirements. At the current staffing level, which includes approximately 19 full-time personnel (as shown in **Chart 6-1**) and one part-time seasonal employee, the City is capable of adequately operating the water system and complying with the minimum Washington State Department of Health (DOH) requirements, although some preventative maintenance tasks are not able to be completed at the recommended frequency. The City should plan to add additional staff as necessary to improve preventative maintenance within the system, and as additional preventive maintenance tasks are required, such as the unidirectional flushing program anticipated to be implemented in 2017. The City is obligated to provide funding for additional personnel when there is an operational need to do so. The City's net operation and maintenance income has been approximately \$6,000,000 to \$7,000,000 in each biennium since 2009 (as shown in **Table 9-1** of **Chapter 9**), and the ending cash reserve balance at the end of each of the bienniums has exceeded \$1,300,000 (as shown in **Table 9-2** of **Chapter 9**), which demonstrates that the City has historically had sufficient funds available for additional personnel, if it would have been needed. The projected ending cash reserve balance through 2027 exceeds \$1,200,000 each year (as shown in **Table 9-4** of **Chapter 9**), indicating that the City is projected to have sufficient funds available for additional personnel as they are needed for operational and maintenance purposes.

**Table 6-3
Current Staff Required**

Description	Total Units In System	Frequency (Times/Year)	Time/Unit (Hours)	Time/Year (Hours)
Preventive Maintenance				
Hydrants	4,100	0.25	0.5	513
Isolation Valves, Hydrant Valves	11,083	0.25	0.25	693
Air and Vacuum Release Valves	7	1	0.5	4
Blowoff Assemblies	209	1	0.25	52
Meters	23,801	0.1	2	4,760
Flushing Water Mains	41 miles	1	32	1,309
Booster Pump Station	11	1	24	264
Pressure Reducing Stations	12	1	8	96
Interties	2	1	8	16
Reservoirs	13	1	20	260
Telemetry and Control System	1	1	40	40
Preventive Maintenance Total				8,006
Operations				
Monitor System	10	260	0.3	780
Ranney Well Facilities	1	1	1,540	1,540
Water Treatment Plant	1	1	3,080	3,080
ASR Well	1	1	770	770
False Alarm Response	2	12	2	48
Meter Reading	23,801	6	0.05	7,140
Groundskeeping	26	12	8	2,496
Inventory	1	1	40	40
Meter Repair/Replace	238	1	2	480
Main Breaks	19	4	8	608
System Failures	2	4	8	64
Hydrant Repairs	41	1	4	164
Service Connections	490	1	8	3,921
Main Connections	10	1	24	240
Routine Dist. System Coliform Sampling	80	12	0.5	480
Routine Source Coliform Sampling	12	12	0.5	72
Misc. Water Quality Sampling	20	12	0.5	120
Administration	1	260	8	2,080
Operations Total				24,124
Total Staff Required				
Total Hours Required				32,130
Total Full-time Staff Required (based on 1,540 hours per person per year)				20.9

NOTE: Individual hours may not sum to totals due to rounding.

CONTINUITY OF SERVICE

As a municipality, the City has the structure, stability, authority, and responsibility to ensure that water service will be continuous. For example, City Council, Mayor, Public Works Director, or other staff changes would not have a pronounced effect on the City's customers or quality of service.

ROUTINE WATER QUALITY SAMPLING

The DOH has adopted federal regulations that specify minimum monitoring requirements for water systems. The sampling requirements depend on the population served, source type, and treatment provided. The specific requirements are contained in WAC 246-290-300. The City currently performs water quality monitoring at its sources and in the distribution system as required by the DOH Drinking Water Regulations. Based on population, the City is required to test at least 80 routine coliform samples each month. A further discussion of the water quality monitoring program is contained in **Chapter 3** and **Appendix H**.

CROSS-CONNECTION CONTROL

The City has adopted a Cross-connection Control Program to comply with WAC 246-290-490 pertaining to contamination of potable water due to cross-connections. The Cross-connection Control Program is included in **Appendix R**. Backflow prevention devices are required at service connections where a potential for contamination exists, as outlined in the Kennewick Municipal Code 15.41 and Kennewick Administrative Code 12-12. The staff members with CCS and BAT certifications are shown in **Table 6-1**.

RECORDKEEPING AND REPORTING

DOH has enacted regulations for recordkeeping and reporting procedures for operations and water quality testing that may be found in WAC 246-290-480.

Recordkeeping

Records must be kept for chlorine residual and other information as specified by DOH. DOH requires retention of critical records dealing with facilities and water quality issues as summarized below.

- Bacteriological analysis results: 5 years.
- Chemical analysis results: for as long as the system is in operation.
- Daily source meter readings: 10 years.
- Water treatment plant records: 10 years.
- Public notices and certifications to DOH: 3 years after issuance.
- Other records of operation and analyses as may be required by DOH: 3 years.
- Documentation of actions to correct violations of primary drinking water standards: 3 years after last corrective action.
- Records of sanitary surveys: 10 years.
- Project reports, construction documents and drawings, inspection reports, and approvals: life of the facility.

- Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWT) initial and second round source water monitoring: 3 years after bin classification.
- Applicable LT2ESWT treatment monitoring associated with microbial toolbox options: 3 years.

Reporting

The City's 24-hour notice procedures are consistent with DOH and U.S. Environmental Protection Agency (EPA) guidelines, and are described in the City's Emergency Response Plan. Mr. Pat Everham, Utilities Superintendent, is the person identified to speak on the City's behalf as these situations dictate.

The City must report the following to DOH.

- Within 48 hours: A failure to comply with the primary standards or treatment technique requirements specified in Chapter 246-290 WAC.
- Within 48 hours: A failure to comply with the monitoring requirements specified in Chapter 246-290 WAC.
- Within 48 hours: A violation of a primary maximum contaminant level (MCL).
- Within 1 business day: A backflow incident per WAC 246-290-490(8)f.
- As soon as possible, but no later than 24 hours after the violation is known: National Primary Drinking Water Regulation (NPDWR) violations and situations with significant potential to have serious adverse effects on human health as a result of short-term exposure that require Tier 1 public notices per title 40 of the Code of Federal Regulations (CFR) 141.202.

The City must submit to DOH all applicable reports required by Chapter 246-290 WAC. Monthly reports are due by the tenth day of the following month, unless otherwise specified. Daily and annual source meter recordings must be made available to DOH upon request. Records regarding the status of monitoring waivers must be submitted during each monitoring cycle. Waiver information is updated annually by DOH, and the utility is provided with a testing schedule.

A water facilities inventory (WFI) and report form must be submitted to DOH within 30 days of any change in name, category, ownership, or responsibility for management of the water system.

The City must notify DOH of the presence of:

- Coliform in a sample within 10 days of notification by the testing laboratory; and
- Fecal coliform or *E. coli* in a sample by the end of the business day in which the City is notified by the testing laboratory.

When a coliform MCL violation is determined, the City must:

- Notify DOH within 24 hours of determining acute coliform MCL violations;
- Notify DOH before the end of the next business day when a non-acute coliform MCL violation is determined; and
- Notify water customers in accordance with WAC 246-290-71001 through 71007 and the EPA's Public Notification Rule.

If volatile organic compound (VOC) monitoring is required, a copy of the results of the monitoring and any public notice must be sent to DOH within 30 days of receipt of the test results.

Other Reports

Several reports are required for other Washington State agencies, including the Department of Revenue, Department of Labor and Industries, Department of Social and Health Services, Department of Ecology, and the Employment Security Department. All of these reports must be completed according to the agency's instructions.

Customer Complaint Program

The City shall maintain a list of complaints and identify what was done to respond to any complaints where public health was at risk.

SAFETY PROCEDURES AND EQUIPMENT

Safety is the concern and responsibility of all water system staff. To maintain the highest level of safety, the City has taken steps toward educating its staff and providing resources to ensure a safe working environment. The City strives to improve its safety program on an on-going basis. The AWWA publishes a manual entitled, *Safety Practices for Water Utilities* (M3), which describes safety programs and provides guidelines for safe work practices and techniques for a variety of water utility work situations. This manual is available to all City personnel. The City has also developed standard operating procedures for many of the operations and maintenance (O&M) tasks. Copies of these standard operating procedures are available to all City personnel, and are included in **Appendix Z**.

Safety training classes in first aid, CPR, traffic safety and flagging, air testing, confined space entry, and equipment calibration are required of all water system staff. In addition, safety talks are conducted weekly for all water system staff. The following identifies procedures to be followed for O&M tasks that involve the most common potential work place hazards in the water system.

The City's Public Works Department follows all appropriate Occupational Safety and Health Administration (OSHA) and Washington Industrial Safety and Health Act (WISHA) regulations in its day to day operations and complies with the following state requirements.

- WAC 296-809-500 to 800: Entry into confined spaces.
- WAC 296-155-650 to 66411 Part N: Shoring of open ditches.
- WAC 296-155-429: Lockout-tagout for work on energized or de-energized equipment or circuits.
- Chapter 296-155 WAC Part C1: Fall restraint for access to the top of the City's water reservoirs.
- *Manual on Uniform Traffic Control Devices*: Traffic control for work in the public right-of-way.
- All requirements and training necessary to maintain state certifications.

Operation of heavy equipment is a potential work place hazard. The water system operators shall follow all appropriate OSHA regulations.

Use of Chlorine or Chlorine Products

Standard Procedure – Handle with care, provide adequate ventilation, wear safety glasses, rubber gloves, and a self-contained breathing apparatus (SCBA), and follow the material safety data sheets (MSDS) and facility standard operating procedures.

Use of Water Treatment Chemicals

Standard Procedure – Follow MSDS and facility standard operating procedures.

Working in Confined Spaces

Standard Procedure – Follow state requirements for confined space entry.

Working around Heavy Equipment

Standard Procedure – Obtain proper training and follow all safety procedures. Use noise protection equipment.

Working in Traffic Areas

Standard Procedure – Wear proper clothing and provide adequate signage and flagging for work area. Certified flaggers are to be used when traffic management requires flagging around a work site.

Working on or around Water Reservoirs

Standard Procedure – Follow proper safety harness procedures for working on tall structures. Entry into a reservoir is considered entry into a confined space work area. Follow regulations and procedures for confined space entry.

Working in or around Pump Stations

Standard Procedure – Obtain proper training and follow all safety procedures for working on pumps and electrical equipment. Use noise protection equipment. Use lockout-tagout safety procedure.

Working on Asbestos Cement Water Main

Standard Procedure – Obtain proper training and follow all safety procedures for working with asbestos materials.

Working on Pressurized Water Main

Standard Procedure – Obtain proper training and follow all safety procedures for working with pressurized water mains.

The following list includes safety and first aid equipment available to water system staff to carry out safety procedures for O&M tasks.

- First aid kits in each vehicle, workshop, and lab
- Safety boots
- Safety eye glasses and goggles
- Ear plugs
- Reflective vests and pants

- Fall harnesses
- Fire extinguishers
- Chemical aprons
- Gloves
- Hard hats
- Respirators
- Eye wash stations in each facility
- Air-fed breathing apparatus equipment for non-hazardous work environments
- Trench shoring equipment
- Air tester for confined spaces
- Traffic safety equipment
- Confined space blower
- Construction radios and cell phones

WATER QUALITY SAMPLING PROCEDURES AND PROGRAM

The City performs water quality monitoring at its sources and in the distribution system as required by DOH Drinking Water Regulations shown in Chapter 246-290 WAC. Further discussion of the City's water quality monitoring is provided in **Chapter 3** of this Water Comprehensive Plan and in the City's Water Quality Monitoring Plan, which is included in **Appendix H**.

Monitoring is required at each of the City's three well sources for inorganic chemicals (IOC), physical substances, organic chemicals, and radionuclides. New unregulated contaminant monitoring must also be performed by the City as required by the Unregulated Contaminant Monitoring Regulation, second cycle.

DOH provides the City with a list detailing the chemical sampling required each year. **Chapter 3** includes a listing of source water quality tests and sampling frequencies. The City will always request that a copy of the drinking water analytical results be sent to DOH.

The following tests are to be conducted by the City's water system operators.

1. **Coliform Bacteria:** The sample must be taken directly from various points in the distribution system. The **Coliform Monitoring Plan** section of this chapter describes the City's sampling procedures.
2. **Inorganic Chemicals:** The sample must be taken at the source tap to monitor source water.
3. **Nitrates:** The samples must be taken at the source tap to monitor source water.
4. **Volatile Organic Chemicals (VOCs):** The sample is to be taken at the source tap to monitor source water.
5. **Synthetic Organic Chemicals (SOCs):** The sample is to be taken at the well house tap to monitor source water.
6. **Radionuclides:** The sample is to be taken at the well house tap to monitor source water.
7. **Lead and Copper:** Samples must be taken directly from residential taps.

8. **Residual Chlorine:** Residual free chlorine samples are taken directly from various points in the distribution system.

DISINFECTANT RESIDUAL CONCENTRATION MONITORING

The distribution system has continually monitoring chlorine analyzers located at nine reservoirs and Booster Pump Stations (BPSs) to measure the free chlorine concentration at each facility. The chlorine analyzers communicate wirelessly with the City's supervisory control and data acquisition (SCADA) system and are monitored daily by the Water Treatment Plant Operators. All chlorine analyzers are calibrated monthly.

Six chlorine-boosting injection stations are located throughout the system at reservoir and BPS facilities. The chlorine booster stations also communicate wirelessly with the City's SCADA system to ensure adequate chlorine residuals are maintained.

In addition to the automatic measurements performed by the chlorine analyzers, City staff take physical chlorine measurements from all reservoirs on a weekly basis. The samples are taken from the top and bottom of the reservoirs. Samples are recorded on a monthly data sheet.

Chlorine residuals are monitored with every coliform bacteria test that is taken throughout the City's water system. Eighty routine coliform samples are collected each month. The average of the monthly chlorine residuals is reported each month to DOH.

DISINFECTION BYPRODUCTS MONITORING

Quarterly monitoring was performed for total trihalomethanes (TTHMs) and haloacetic acids (HAA5) through 2012 as part of the Stage 1 Disinfectants/Disinfection Byproducts Rule (Stage 1 D/DBPR) requirements. The City currently performs standard monitoring at eight sample locations to meet Stage 2 Disinfectants/Disinfection Byproducts Rule (Stage 2 D/DBPR) requirements.

Lead and Copper Monitoring

Currently, 30 or more samples are taken every 3 years as required by the City for lead and copper. Samples are taken at customer taps from June through September. The City most recently performed lead and copper monitoring in 2011, and will be required to sample for lead and copper again by September 2016. The 2011 sampling identified lead and copper levels below the action levels.

Asbestos Monitoring

DOH has granted the City's Water Department a 9-year waiver for asbestos monitoring, with the next sample required prior to June 2018. Therefore, until required, no asbestos monitoring takes place within the water system.

COLIFORM MONITORING

The City's coliform monitoring procedures are included in this Water Comprehensive Plan (WCP) as part of **Appendix H**, as is a copy of Kennewick Administrative Code (KAC) 12-56-050, which

identifies the responsibilities and procedures associated with coliform monitoring. A copy of the City's water quality monitoring schedule, effective June 2016, is also presented in **Appendix H**.

Coliform sampling protocol involves collecting at least 80 routine coliform samples each month in the distribution system at specified locations. If a sample tested by the laboratory is unsatisfactory (positive, coliforms present), the lab will contact the City and the City will collect repeat samples at specified locations per the **Violation Procedures** section that follows. At various frequencies, coliform samples are also taken at the City's water sources, at house taps in response to customer complaints, at locations of new construction or system repairs, and at the reservoirs. Chlorine grab samples are also taken with all coliform samples. All routine coliform bacterial samples from 2010 to June 2016 have been satisfactory.

VIOLATION PROCEDURES

MCLs and WCP are stated in WAC 246-290-310. If an MCL or MRDL is exceeded, the City will take follow-up action in accordance with WAC 246-290-320. In general, when a primary standard violation occurs, the City will do the following:

1. Provide notification to the DOH in accordance with WAC 246-290-480;
2. Provide notification to consumers in accordance with 40 CFR 141.201 through 141.208 and Part 7, Subpart A, of WAC 246-290-300;
3. Determine the cause of the contamination; and
4. Take action as directed by the DOH.

When a secondary standard violation occurs, the City will notify DOH and take action as directed. Additional follow-up action specific to coliform monitoring includes repeat sample monitoring, identification of the cause of the coliform presence, and correction. MCLs for disinfection byproducts and MRDLs for disinfectant residuals are primary standards.

There are no MCLs established for lead and copper. If the 90th percentile results of either lead or copper exceed the corresponding action level, the City will need to follow additional requirements as required by the Lead and Copper Rule and the DOH. Additional requirements include increased monitoring and treatment.

EMERGENCY PROGRAM, SERVICE RELIABILITY REQUIREMENTS, AND WATER SHORTAGE PLAN PER WAC 246-290-420

CAPABILITIES

The City is equipped to accommodate short-term system failures and abnormalities. The general water system emergency response capabilities are as follows.

Multiple Supply Capability

The City could lose the operation of the ASR Well or either Ranney Well without adversely impacting its ability to meet the normal demands of its customers. Loss of operation of the City's water treatment plant (WTP) in the non-winter months could adversely impact the City's ability to

meet the normal demands of its customers, depending on the nature of the facility failure and the time that the facility is offline. The City has two emergency intertie agreements with the City of Richland that can be utilized during an emergency situation: one located at the intersection of Gage Boulevard and Steptoe Street; and one located near the intersection of Columbia Center Boulevard and Tapteal Drive. Additional information regarding the emergency interties is presented in **Chapter 1**.

Reservoirs

The maximum combined storage capacity of the City's reservoirs is 32.94 million gallons (MG), with the storage located at nine sites throughout the water system. The duplication of reservoirs in Zones 2, 3, and 4 provides sufficient redundancy to prevent service disruption when one of the reservoirs is out of service for cleaning, painting, repairs, or any other reason. Zones 1 and 5 have redundant pumping facilities and can meet the maximum day demands and fire flow requirements of the zones in the event that the 19th and Olympia (Zone 1) or Zone 5 reservoirs are offline.

Distribution System

The City has attempted to loop water mains wherever possible to improve water circulation (i.e., water quality) and minimize impacts to the system in the event that a portion of the distribution system must be taken out of service for maintenance or repairs. Additionally, zone valves between pressure zones can be fully or partially opened on an as-needed basis in the event of an emergency.

Emergency Equipment

The City is equipped with the necessary tools to deal with common emergencies. If a more serious emergency should develop, the City will hire a local contractor to make repairs to alleviate the emergency condition.

Emergency Telephone

The Water Department has an established emergency procedure for the public to contact Water Department personnel. The City's emergency call roster, radio contact roster, personnel list, and employee experience table are updated quarterly, and are distributed to a contracted answering service, emergency dispatch (911), Benton County Emergency Services, Franklin County Emergency Services, Kennewick Police, Kennewick Fire, and each individual Public Works Department.

On-call Personnel

The on-call person is required to respond to a call within 60 minutes, but can often respond to a call within 30 minutes. A list of emergency telephone numbers is provided to each on-call employee. New employees are not placed on-call until they are familiar with the water system and maintenance procedures and are properly certified by the State of Washington.

Contacts

The City maintains a list of adjacent utility contacts for routine and emergency use, shown in **Table 6-4**.

**Table 6-4
Utility and Agency Contacts**

Agency	Contact	Phone	Address
Utility Contacts			
City of Richland	Water Utility	(509) 942-7670	2700 Duportail Street Bldg. 100 Richland, WA 99352
	After Hour and Weekend Emergencies	(509) 545-2763	
Kennewick Irrigation District	Main Office	(509) 586-9111	2015 S Ely Street Kennewick, WA 99337
Columbia Irrigation District	Main Office	(509) 586-6118	10 E Kennewick Avenue Kennewick, WA 99336
Agency Contacts			
Washington State Department of Health	Jeff Johnson	(800) 833-6388	16201 E Indiana Avenue Suite 1500 Spokane Valley, WA 99216

Material Readiness

Some critical repair parts, tools, and equipment are kept on-hand and in fully operational condition. As repair parts are used, they are re-ordered. Inventories are kept current and are adequate for most common emergencies that can reasonably be anticipated. The City has ready access to an inventory of repair parts, including parts required for repair of each type and size of pipe within the service area.

EMERGENCY RESPONSE PLAN

In 2004, an *Emergency Response Plan* (ERP) was prepared for the City by CH2M Hill, Inc., to assist in preparing for emergency events related to the City's water supply and distribution system. The ERP includes a vulnerability assessment, contingency procedures, and emergency response procedures. The ERP should be updated in accordance with the requirements of the Bio-Terrorism Act of 2002 amendments to the Safe Drinking Water Act.

The updated ERP should contain a vulnerability assessment of the City's water system facilities, a contingency operation plan for responding to emergency events, a list of water personnel responsible for making decisions in emergency situations, and other elements. The ERP contains confidential and/or sensitive information and is exempt from the Public Disclosure Act. However, it will be available to City staff and can be reviewed by regulatory agencies on a need to know basis.

PUBLIC NOTIFICATION

The Federal Safe Drinking Water Act (SDWA), WAC 246-290-71001 through 71007, and the EPA's Public Notification Rule require purveyors to notify their customers if any of the following conditions occur.

- Violations of NPDWR.
- Failure to comply with a primary MCL described under WAC 246-290-310.

- Failure to comply with a surface water treatment technique.
- Failure to comply with monitoring requirements under Chapter 246-290 WAC.
- Operation under a variance or exemption.
- Failure to comply with the requirements of any schedule that has been set under a variance or exemption.
- Failure to comply with testing procedures as prescribed by drinking water regulations.
- Occurrence of a water-borne disease outbreak or other water-borne emergency.
- Exceedance of the secondary maximum contaminant level (SMCL) for fluoride.
- Availability of unregulated contaminant monitoring data.
- Issuance of a departmental order.
- Failure to comply with a departmental order.
- Issuance of a category red operating permit by DOH.

Public notice requirements for each type of violation or situation are organized into three tiers per 40 CFR 141.201 through 208 and are based on the seriousness of the violation and the potential for adverse health effects. Tier 1 public notices are required for NPDWR violations and situations with significant potential to have serious adverse effects on human health as a result of short-term exposure. Public notices in this tier must be provided as soon as possible (no later than 24 hours after the violation is known). The DOH must also be notified within this timeframe, and it may require repeat or additional notices.

Tier 2 public notices are required for all other NPDWR violations and situations not covered in Tier 1 with the potential to have serious adverse effects on human health. Public notices under Tier 2 requirements, with the exception of turbidity violations, must be provided as soon as possible, but no later than 30 days after the violation is known. Turbidity violations must be reported to DOH as soon as possible, but no later than 24 hours after the violation is known, to determine whether a Tier 1 public notice will be necessary. Repeat notices must be issued for as long as the violation persists.

All other NPDWR violations and situations not included in Tier 1 and Tier 2 are grouped within Tier 3. Tier 3 public notices must be provided within 1 year of the City learning of the violation or beginning operations under a variance or exemption. The notice must be repeated annually for as long as the violation, variance, exemption, or other situation persists.

PREVENTIVE MAINTENANCE

Maintenance schedules that meet or exceed manufacturers' recommendations have been established for all critical components in the City's water system. The following schedule is used as a minimum for preventive maintenance. A copy of the City's maintenance form is included in **Appendix S**.

WATER TREATMENT PLANT

Daily	Log and record run hours, motor starts, chemicals used, chemicals added, chlorine solution generated, fuse indicators, backwash volumes, volume delivered, and current supply rate; visually inspect pumps; check pump packing; check pump oil levels; check all equipment for proper function and operation; check security.
Monthly	Exercise the emergency eyewash and emergency shower.
Monthly	Perform filter maintenance cleaning.
Annually	Check all valves and screens; check control valve settings; re-grease pumps; change pump oil.
As Needed	Maintain electrical and mechanical equipment; paint structures and piping; calibrate equipment; maintain and repair indoor and outdoor facilities.

WELLS

Daily	Log and record volume delivered and current supply rate; perform visual and audio inspection; check packing; check security; check for excessive heat and vibration of pump motors.
Seasonally	Measure and record well levels from ground level to the static level.
Annually	Check all valves and screens; check control valve settings; re-grease.
As Needed	Maintain electrical and mechanical equipment; paint structures/piping; calibrate equipment; replace o-rings and diaphragms in equipment.

STORAGE FACILITIES

Daily	Monitor water levels and chlorine residuals. Check security.
Annually	Perform leak test. Inspect the following for proper operation: aesthetics; check valves; doors/hatches; drains; ladders; paint; riser pipe; roof/cover; screens; turnover; and vents.
5-year Intervals	Clean and inspect reservoir interiors.

DISTRIBUTION SYSTEM

As Required	Leak survey.
As Required	Flushing.

BOOSTER PUMP STATIONS

Weekly	Operate pumps; observe and record current draw (three phases); check packing; log and record volume delivered and pump motor hours; check motor oil level; measure and record discharge pressure; check motor noise, temperature, and vibration; check security.
Weekly	Inspect the following to confirm proper operation: efficiency; leaks; lubrication; noise; odor; operation; and pressure.

INTERTIES

Annually	Review intertie procedures with adjacent utility.
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ENGINE GENERATOR SETS

Weekly	Operate to achieve normal operating temperatures; observe output.
As needed	Replace fluids and filters in accordance with manufacturer's recommendations (or more frequently depending on amount of use).
As needed	Perform tune-up; replace parts as necessary.

PRESSURE REDUCING STATIONS

Monthly	Check vault for adequate drainage, clean drain if necessary. Check grout at pipe penetrations for leaks; check ladders, lid, and hatch for proper operation and condition; check piping and valves for leaks.
Annually	Inspect for noise, leaks, open/close speed, pressure settings, and operation.

ISOLATION VALVES

4-year Intervals	Inspect the following for proper operation: valve box; valve box lid; packing; nut; stem; and operation.
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HYDRANTS

4-year Intervals	Inspect the following for proper operation: cables; caps; drain; gaskets; guard posts; nozzle; operating nut; operation; paint; static pressure; reflectors; tag; valve box; valve box lid; water quality; and tracing wire.
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METERS

10-year Intervals	Time and measure volume of meter-delivered flow; dismantle, clean, and inspect all parts; replace worn or defective parts; retest meter for accuracy. Frequency varies based on meter size. Customer meters shall be replaced when reading problems are encountered.
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AIR AND VACUUM RELEASE VALVE ASSEMBLIES

Bi-annually	Inspect the following for proper operation: valve; plumbing; valve box; valve box lid; standpipe; and tracing wire.
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BLOWOFF ASSEMBLIES

Bi-annually	Inspect the following for proper operation: valve; valve box; valve box lid; blowoff box; blowoff box lid; standpipe; plug; and tracing wire.
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STRUCTURES

Annually	Inspect the following for proper operation: aesthetics; bulkhead; doors/hatches; paint; roof; gutters; vents; and plumbing.
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BACKFLOW PREVENTION DEVICES

Annually	Inspect and record status.
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TELEMETRY AND CONTROL SYSTEM

Weekly	Visually inspect cabinets and panels for damage, dust, and debris.
Annually	Inspect the following for proper operation: wiring; register accuracy; box; panel; battery; radio; labels; and locks.

TOOLS AND EQUIPMENT

Rolling Stock	
Daily	Check all fluid levels and brakes.
As scheduled	Replace fluids and filters in accordance with manufacturer's recommendations.
Tools	
As needed	Clean after each use; lubricate and maintain as necessary.

7 | DISTRIBUTION FACILITIES DESIGN AND CONSTRUCTION STANDARDS

INTRODUCTION

The City of Kennewick (City) Water Utility operates and plans water service according to the design criteria, laws, and policies that originate from the seven sources listed in **Table 7-1**, shown in descending order of authority from the broadest to the narrowest.

Table 7-1
Regulatory Agencies

Agency	Design Criteria/Laws/Policies
U.S. Department of Health and Human Services	Federal Regulations
U.S. Environmental Protection Agency	Federal Regulations
Washington State Department of Health	State Regulations
Washington State Department of Ecology	State Regulations
Benton County Commission	County Regulations
Kennewick City Council	Administrative Policies
American Water Works Association	Design Criteria

These design criteria, laws, and policies guide the City's operation and maintenance of the water system on a daily basis, and it's planning for growth and improvements. The overall objective is to ensure that the City can provide high-quality water service at a minimum cost to its users. The design criteria also set standards that the City must meet to ensure that the water supply is adequate to meet existing and future water demands. The system's ability to meet these demands is detailed in **Chapter 3**, and the recommended improvements are identified in **Chapter 8**.

The highest three governmental entities – U.S. Government, Washington State, and the Benton County Commission – establish policies and laws in statutes, regulations, or ordinances. The Kennewick City Council and Mayor adopt policies that cannot be less stringent or in conflict with those established by governments above them. The City's policies take the form of ordinances, memoranda, and operational procedures, many of which are summarized in this chapter.

The following policies associated with the following categories are presented in this chapter.

- Supply
- Customer Service
- Facilities
- Finance
- Organization

SUPPLY POLICIES AND STANDARDS

QUALITY PROTECTION

- The City will pursue steps to meet or exceed all water quality laws and standards.
- The City will take all reasonable measures to protect its system and customers.

CROSS-CONNECTION CONTROL

- The City has the responsibility to protect its water system from contamination due to cross-connections.
- The City has a cross-connection control program for eliminating cross-connection contamination, as authorized by Kennewick Municipal Code 15.41 and Kennewick Administrative Code 12-12. A copy of the City's Cross-connection Control Program is contained in **Appendix R**.
- The City has backflow assembly tester (BAT) staff that is certified for backflow prevention and testing.
- The City will comply with the backflow prevention assembly installation and testing requirements as indicated in Washington Administrative Code (WAC) 246-290-490, and as published in the manual entitled, *Cross Connection Control Manual Accepted Procedure and Practice*, Pacific Northwest Section, American Water Works Association (AWWA).
- A copy of the City's cross-connection program summary report, submitted annually to the Washington State Department of Health (DOH), is contained in **Appendix W**.

QUANTITY

- The City will plan for at least 20 years into the future so that future water resource limitations can be handled efficiently.
- The City will ensure that the capacity of its systems, including pump stations, reservoirs, and transmission mains, is sufficient to meet the maximum day demand (MDD) of the water system.

CONSERVATION

- The City will promote efficient and responsible use of water and will conserve water during a shortage.
- The City has a Water Use Efficiency Program that is contained in **Chapter 4**.

REGIONAL PARTICIPATION

- The City participates in regional water forecasting and conservation planning with the Cities of Pasco, Richland, and West Richland. These cities, including Kennewick, share the Quad City Water Right and update the Regional Water Forecast and Conservation Plan every 6 years as required by the Washington State Department of Ecology.

CUSTOMER SERVICE POLICIES

DUTY TO SERVE

The City has a duty to provide service to all new connections within the retail service area when the circumstances meet four threshold factors:

- The City has sufficient capacity to serve water in a safe and reliable manner;
- The service request is consistent with local plans and development regulations;
- The City has sufficient water rights to provide service; and
- The City can provide service in a timely and reasonable manner.

The following section, **Water Service and Connection**, provides additional detail regarding the City's duty to serve policies.

WATER SERVICE AND CONNECTION

- The City will strive to provide potable water service to all people within the designated water service area, provided all policies related to service can be met.
- All proposed developments within the designated water service area will connect directly to the City's water system, unless deemed unfeasible by the City at the time of the request.
- Water system extensions required to provide water service to proposed developments will be approved by the Department of Public Works. Extensions must conform to the City's adopted design criteria, construction standards, and specifications, as shown in the City's Water System Standard Specifications and Drawings contained in **Appendix D**. All costs of the extension will be borne by the developer.
- Requests for new water service will be processed by the City's Finance Department and approved by the Public Works Director, in accordance with Kennewick Municipal Code 14.09.030. The City may require the applicant to provide construction plans signed and stamped by a professional engineer, licensed in Washington State. After the request for new water service and any required construction plans are received by the City, the location of the proposed service will be reviewed to ensure it is within the City's retail water service area. The location will also be evaluated to determine fire flow availability, meter size, and improvements necessary for adequate water pressure, fire flow, looping, or extensions. The adequacy of water system capacity to serve the applicant's property will also be evaluated at this time. New water service applications will be reviewed within 30 days of receipt of application and associated fees.
- The City will determine whether adequate water system capacity is available to serve the applicant's property, based on available capacity from supply, storage, and transmission. This will be accomplished through the ongoing tracking of equivalent residential units served by the City in comparison to the maximum number of equivalent residential units that can be served by the system, as computed in **Chapter 3** of this Water Comprehensive Plan (WCP).

- Water availability certifications will expire at the time that the associated building permit expires or in the event that the water service is not made ready by the applicant for connection to the City within 120 days of the approval of the application.
- Delays resulting from non-technical conditions that affect the City's ability to provide new water service will be the responsibility of the applicant. These conditions include, but are not limited to, environmental assessments, local ordinances, and annexation procedures.
- Water service to areas outside of the City's retail water service area boundary will be coordinated with adjacent water purveyors and the DOH, and evaluated on a case-by-case basis by the City Council. Water service to these areas shall be in compliance with the adopted land use plan, zoning, and development regulations for the area.

ANNEXATIONS

- Areas annexed without existing municipal supply will be served by the City.
- Areas annexed with existing municipal supply must meet the City's water standards.
- The City will follow State guidelines in the assumption of facilities in annexation areas.
- Service to areas outside of the City limits without annexation will be coordinated with adjacent water purveyors and evaluated on a case-by-case basis by the City Council.

TEMPORARY SERVICES

- Compliance with standards may be deferred for temporary water service.

EMERGENCY SERVICE

- Compliance with standards may be deferred for emergency water service, as reviewed and approved on a case-by-case basis by the Public Works Director.
- Policy criteria may be waived for emergency service.

PLANNING BOUNDARIES

- For planning purposes, the City will use water service boundaries established by agreement.
- The City will follow State of Washington guidelines in assuming portions of adjacent water systems as a result of annexation.

FINANCIAL POLICIES

The policies that guide the development of the Financial Program in **Chapter 9** are contained in **Appendix X** of this WCP.

CONSTRUCTION STANDARDS

The City's construction standards are summarized in the section that follows and described in the Water System Standard Specifications and Drawings shown in **Appendix D**.

WSDOT STANDARD SPECIFICATIONS

The Washington State Department of Transportation (WSDOT) *Standard Specifications for Road, Bridge, and Municipal Construction* will supplement the City's construction standards.

PROJECT APPROVAL

Prior to construction of all water system projects and improvements, it is necessary to receive DOH approval of construction documents in accordance with WAC 246-290-120, except for those projects exempted under WAC 246-290-125. The City would like to retain eligibility for the submittal exception process for all distribution system related improvements, as well as transmission main, storage tank, and booster pump station improvements identified in this WCP. Pending DOH concurrence, the City would continue to be exempt from having to submit project reports and construction documents pending the approval of the standard construction details contained in **Appendix D** of this WCP. Current versions of the standard specifications and details are also available on the City's website.

PROJECT COMPLETION

Once construction of a water system project has been completed, a Construction Completion Report Form is required to be submitted to DOH within 60 days of completion and before use of any water system facility. For distribution system related improvements, the forms will not be submitted to the DOH, but will be kept on file and made available to the DOH upon request. The form shall be provided per WAC 246-290-040.

Additional criteria are contained in the City's Water System Standard Specifications and Drawings, a copy of which is included in **Appendix D** of this WCP.

8 | IMPROVEMENT PROGRAM

INTRODUCTION

This chapter presents proposed improvements to the City of Kennewick's (City) water system that are necessary to resolve existing system deficiencies and accommodate the projected growth of water customers. The water system improvements were identified following the water system analyses presented in **Chapter 3**. The water system improvements were sized to meet both the existing and future demand conditions of the system.

A Capital Improvement Program (CIP) number has been assigned to each improvement. Numbers were assigned to the improvements starting at the northeast end of the system and, in general, incrementally increase to the southwest. The proposed 2021 (6-year) planning period improvements are shown in **Figure 8-1**, the proposed 2027 (12-year) planning period improvements are shown in **Figure 8-2** and the proposed 2035 (20-year) planning period improvements are shown in **Figure 8-3**. The improvements are organized and presented in this chapter according to the following categories:

- Water System Improvements since the 2010 Water Comprehensive Plan (WCP);
- Water Main Improvements;
- Pressure Zone Improvements;
- Vista Field Emergency Supply Improvements;
- Pressure Reducing Valve (PRV) Improvements;
- Miscellaneous Improvements; and
- Developer-funded Improvements.

The remainder of this chapter presents a brief description of each group of improvements, the criteria for prioritizing, the basis for the cost estimates, and the schedule for implementation.

DESCRIPTION OF IMPROVEMENTS

This section provides a general description of each group of improvements and an overview of the deficiencies they will resolve. Most of the improvements are necessary to resolve existing system deficiencies. However, improvements have also been identified for some undeveloped areas to illustrate the major facilities that will be required when future development occurs in those areas. The costs associated with these improvements shall be borne by the developers, rather than the existing water customers. The locations of improvements in the undeveloped areas that are most likely to develop within the 20-year planning horizon are shown schematically in **Figure 8-3**. The CIP numbers for the developer-funded improvements have a "DF" prefix (example: DF1). The DF projects will most likely be altered to fit the layout of the future developments as necessary.

WATER SYSTEM IMPROVEMENTS SINCE THE LAST WCP

The water system has undergone changes since 2010, when the City last updated its WCP. **Table 8-1** lists the CIP projects that have been completed since the City's 2010 WCP. These projects have primarily consisted of large diameter transmission main, reservoirs, and booster pump stations (BPS)

City Limits

Urban Growth Area and Existing Retail Water Service Area

Future Retail Water Service Area

Existing Water System Infrastructure

Pressure Reducing Valves

Booster and Well Pumps

Reservoirs

Sources

Interties

Water Main Pressure Zone

Zone 1

Zone 2

Zone 3

Zone 4

Zone 5

Zone 6

Facilities and Zone Valve Piping

Proposed Water System Infrastructure

Pressure Reducing Valves

Zone Valves

Water Main Improvements

CIP WM2 Replacements

Vista Field - Phase 2 Improvements

Vista Field - Phase 3 Improvements

Pressure Zone Boundaries

Zone 1

Zone 2

Zone 3

Zone 4

Zone 5

Zone 6 (Future)

Zone 7 (Future)

The map displays the City of Kennewick, Washington, with various water system components. It is divided into seven pressure zones, each color-coded: Zone 1 (light blue), Zone 2 (orange), Zone 3 (tan), Zone 4 (light green), Zone 5 (pink), Zone 6 (purple), and Zone 7 (light green, labeled as future). The map shows existing infrastructure like reservoirs (e.g., Kansas, Thompson Hill, Canyon Lakes), pumps (e.g., Ranney Well #4, ASR Well), and piping. Proposed improvements are highlighted in red (water main), purple (CIP WM2), and green (Vista Field phases 2 and 3). The Columbia River is to the north, and the City of Pasco is to the east. The City of Richland is to the west. Major roads like SR 240, SR 395, and SR 397 are shown. The map also includes labels for various streets and landmarks like the Golf Course BPS and WTP & High Service BPS.

Vicinity Map

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, PC, NRCAN, Esri Japan, METI, Esri China (Hong

Figure 8-1

Proposed 6-Year (2021)

Water System Improvements

City of Kennewick

2017 Water Comprehensive Plan

Coordinate System: NAD 1983 StatePlane Washington South FIPS 4602 Feet

By: rwithers

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1 inch = 2,000 feet

0 1,000 2,000 4,000

Feet

Plot Date: 2/21/2017

NORTH

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City Limits

Urban Growth Area and Existing Retail Water Service Area

Future Retail Water Service Area

Existing Water System Infrastructure

Pressure Reducing Valves

Booster and Well Pumps

Reservoirs

Sources

Interties

Water Main Pressure Zone

Zone 1

Zone 2

Zone 3

Zone 4

Zone 5

Zone 6

Facilities and Zone Valve Piping

Proposed Water System Infrastructure

Pressure Reducing Valves

Zone Valves

Water Main Improvements

CIP WM2 Replacements

Vista Field - Phase 2 Improvements

Vista Field - Phase 3 Improvements

Pressure Zone Boundaries

Zone 1

Zone 2

Zone 3

Zone 4

Zone 5

Zone 6 (Future)

Zone 7 (Future)

The main map displays the City of Kennewick, Washington, with various water system components. It is divided into seven color-coded pressure zones: Zone 1 (blue), Zone 2 (orange), Zone 3 (brown), Zone 4 (light blue), Zone 5 (pink), Zone 6 (purple), and Zone 7 (green, labeled as future). The map shows existing infrastructure like reservoirs (e.g., Thompson Hill, Canyon Lakes, Kansas), wells (e.g., Ranney Well #4, ASR Well), and pumps. Proposed improvements are highlighted with red lines for water main upgrades and green lines for Vista Field Phase 2 improvements. Blue dashed lines indicate future retail water service areas. The map also shows the Columbia River to the north and east, and neighboring cities like Pasco and Richland. Major roads such as SR 240, SR 397, and I-5 are labeled.

Vicinity Map

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, PC, NRCAN, Esri Japan, METI, Esri China (Hong Kong)

Figure 8-2

Proposed 12-Year (2027)

Water System Improvements

City of Kennewick

2017 Water Comprehensive Plan

1 inch = 2,000 feet

0

1,000

2,000

4,000

Feet

Plot Date: 2/21/2017

RH2

NORTH

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Legend

City Limits

Urban Growth Area and Existing Retail Water Service Area

Future Retail Water Service Area

Existing Water System Infrastructure

Pressure Reducing Valves

Booster and Well Pumps

Reservoirs

Sources

Interties

Water Main Pressure Zone

Zone 1

Zone 2

Zone 3

Zone 4

Zone 5

Zone 6

Zone 7

Facilities and Zone Valve Piping

Proposed Water System Infrastructure

Pressure Reducing Valve

BPS

Reservoir

Zone Valve

2021 Improvement

2027 Improvement

High Priority Improvement

Medium Priority Improvement

Low Priority Improvement

Developer-funded Improvement

Pressure Zone Boundaries

Zone 1

Zone 2

Zone 3

Zone 4

Zone 5

Zone 6 (Future)

Zone 7 (Future)

The main map displays the City of Kennewick, Washington, with its water system infrastructure. It is divided into seven pressure zones, each color-coded: Zone 1 (light blue), Zone 2 (orange), Zone 3 (brown), Zone 4 (light green), Zone 5 (pink), Zone 6 (purple), and Zone 7 (light green). The map shows existing water mains, proposed improvements (2021 and 2027), and developer-funded projects. Key features include the Columbia River to the north, the City of Pasco to the northeast, and the City of Richland to the west. Major roads like SR 240, SR 297, and SR 298 are shown. Specific infrastructure projects are labeled, such as the 'Proposed Zone 5 Reservoir & Zone 6 South BPS (CIPs DF3 & DF10)', 'Proposed Zone 6 East Reservoir & Zone 7 East BPS (CIPs DF8 & DF9)', and 'Proposed Zone 6 South Reservoir & Zone 7 South BPS (CIPs DF10 and DF11)'. The map also shows existing reservoirs like the Kansas Reservoir and proposed ones like the Canyon Lakes Reservoir. A north arrow is located in the upper right corner of the map area.

Vicinity Map

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong)

Figure 8-3
Proposed 20-Year (2035)
Water System Improvements
City of Kennewick
2017 Water Comprehensive Plan

Coordinate System: NAD 1983 StatePlane Washington South FIPS 4602 Feet

By: rwithers

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1 inch = 2,000 feet
0 1,000 2,000 4,000 Feet
Plot Date: 2/21/2017

NORTH

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to support growth in the southern portion of the City's water service area. The City has also installed an aquifer storage recovery (ASR) well and has been performing operational and regulatory well testing since 2014.

Table 8-1
Improvements Completed Since 2010

Project Description	Size or Capacity	Length (feet)	Year
ASR Well	2,080 gpm	---	2014
Thompson Hill BPS	5,300 gpm	---	2015
Thompson Hill Reservoir	3.0 MG	---	2015
Zone 3 Railroad Crossing in Steptoe Street	8"	4,800	2013
Zone 4 Transmission Main	8", 12", 16"	10,600	2012-2014
Zone 5 Transmission Main	8", 12", 16", 18"	26,200	2011-2014
Zone 5 Reservoir	1.0 MG	---	2010
Zone 6 BPS	2,238 gpm	---	2014
Zone 6 Transmission Main	8", 12"	2,400	2014

WATER MAIN IMPROVEMENTS

The following water main improvements were identified from the results of the distribution and transmission system analyses discussed in **Chapter 3**. The water main improvements involve replacing existing distribution water main and constructing new water main to improve fire flow availability. The City has an annual water main replacement program and several high-priority water main replacement projects are grouped under Annual Fire Flow Deficiency Water Main Replacement Program projects (CIP WM1). The individual water main improvement projects within this group are numbered 1 through 154, as shown in **Figure 8-3**. Other significant water main improvement projects have been described individually and labeled as CIP WM2 through CIP WM8, also shown in **Figures 8-1, 8-2, and 8-3**.

Future Water Main Extensions and Replacements

All new water main extensions and replacements shall be installed in accordance with the City's Standard Specifications and Drawings, which are contained in **Appendix D**. All new water main shall be cement-mortar lined ductile iron pipe. Polyvinyl chloride (PVC)-C900 may be approved by the City for mains 10-inches in diameter and smaller. All new water main shall be sized by a hydraulic analysis to ensure that all pressure, flow, and velocity requirements, as stated in **Chapter 7**, are met. In general, new water mains that will carry fire flow in residential areas shall be a minimum of 8 inches in diameter and looped for single-family transmission purposes. New water mains in commercial, high density (multi-family) residential, industrial, and school areas shall be a minimum of 12 inches in diameter and looped.

CIP WM1: Fire Flow Deficiency Water Main Replacement Program

Deficiency: The water main improvements shown in **Figure 8-3** are required to resolve existing system fire flow deficiencies caused primarily by undersized water mains. Many areas also contain non-standard water main materials.

Improvement: Replace existing water main with new ductile iron or PVC-C900 water main in accordance with the City's construction standards. The individual water main improvements

grouped under this project are numbered 1, 2, 3, etc., as shown in **Figure 8-3**. The selection of specific projects will be accomplished biennially during the City's budget development process and will be guided by the prioritization presented in the **Prioritizing Improvements** section in this chapter. This method for selecting projects provides the City with the flexibility to coordinate these projects with other projects that may occur within the same area. An allowance of \$750,000 per year (\$1,500,000 per biennium) has been established for the replacement of undersized water mains during the initial 10-year planning period.

CIP WM2: Asbestos Cement, Galvanized, or Steel Water Main Replacement Program

Deficiency: Water mains constructed of non-standard water main materials (e.g., asbestos cement (AC), galvanized, or steel) are nearing the end of their useful life and have had a higher frequency of breaks or maintenance needs in the past 10 years.

Improvement: Replace existing water main constructed of non-standard materials that are adequately sized and therefore not included in CIP WM1. The selection of specific projects will be accomplished biennially during the City's budget development process. The highest priority AC, galvanized, and steel water main replacement projects, identified by the City's water system maintenance staff, are shown in **Table 8-3**.

Table 8-2
High Priority Non-standard Material Water Main Replacement Projects

CIP No.	Length (LF)	Diameter	Material	Location Description		
				In	From	To
MAT1	559	8"	Steel	W Grand Ronde Ave	N Yelm St	W Hood Ave
MAT2	787	8"	Steel	Parking Lot	~ W Kennewick Ave	W Clearwater Ave
MAT3	3,439	8"	AC, Steel	S Irby St	W 10th Ave	W 13th Ave
			AC, Steel	S Johnson St	W 10th Ave	W 13th Ave
MAT4	1,717	8"	Steel	W Grand Ronde Ave	W Grand Ronde Pl	N Conway Pl
			Steel	N Conway Pl	W Grand Ronde Ave	N Ely Pl
MAT5	786	12"	Steel	N Benton St	W Canal Dr	W Columbia Dr
MAT6	1,406	8"	Steel	S Buntin St	W 4th Ave	W 6th Ave
			Steel	W 6th Ave	S Buntin St	S Conway St
			Steel	S Conway St	W 6th Ave	S Buntin St
MAT7	1,313	8"	Steel	W 19th Ave	S Buntin St	S Vancouver St
MAT8	2,652	8", 12"	Steel	S Garfield St	W 10th Ave	W 19th Ave
MAT9	1,815	8"	AC	S Garfield St	W 19th Ave	W 24th Ave

Replacement of the high-priority, non-standard material water main is proposed to be accomplished within the 6-year planning period. Replacement of these mains with ductile iron or PVC-C900 main of the same capacity, or a minimum of 8-inch water main for existing smaller diameter water main, is estimated to cost \$2,074,000. An allowance of \$350,000 per year (\$700,000 per biennium) has been established for the replacement of the high-priority, non-standard material water main to complete these replacements within the 6-year planning period.

Following replacement of the high-priority, non-standard material water main, approximately 104 miles of AC main, 5 miles of galvanized main, and 42 miles of steel main will remain in the City's water system. An allowance of \$350,000 per year is proposed to continue through the 20-year planning period for replacement of non-standard material water main. This allowance will result in approximately 7 miles of water main replacement between the 7- and 20-year planning period, depending on the water main size and location of the specific projects identified biennially during the City's budget development process.

CIP WM3: Kennewick Irrigation District Elliot Lake Water System Acquisition

Deficiency: Kennewick Irrigation District (KID) currently owns and operates the Elliot Lake potable water system, located approximately 1,000 feet south of the intersection of Gum Street and Kingwood Street in the City's Zone 2 pressure zone. The City currently provides water service to the water system, which consists of approximately 48 single-family residences, through an existing intertie. KID desires to transfer ownership and operation responsibilities of the Elliot Lake water system to the City. Portions of the existing Elliot Lake distribution system are undersized, not looped, and do not meet the City's distribution system standards.

Improvement: Replace approximately 4,300 linear feet (LF) of existing 4-inch and smaller water main with 6-inch water main in the existing Elliot Lake water system. Install approximately 1,300 LF of 8-inch water main in the E. 45th Avenue extension to provide looped service to the existing Elliot Lake customers. This water main will be located within wetland areas immediately south of Elliot Lake, and may require special construction procedures and permitting requirements. Costs associated with these improvements will be paid by KID prior to the City's acquisition of the water system. Therefore, identification of the planning-level improvements necessary to upgrade the distribution system in this area are included in this WCP, but the costs of these improvements, which are estimated to be approximately \$964,000 (in 2016 dollars) based on the unit costs presented in the **Estimating Costs of Improvements** section of this chapter, are not included in the proposed implementation schedule for future budgeting.

CIP WM4: Ridgeline Drive Highway 395 Crossing Water Main

Deficiency: A single 12-inch AC water main provides the only hydraulic connection to the Zone 4 distribution system on the west and east sides of Highway 395, limiting fire flow availability to existing Zone 4 customers.

Improvement: Install approximately 2,400 LF of 12-inch water main in S. Zintel Way and Ridgeline Drive, approximately between Christensen Road on the west side of Highway 395 and the existing commercial development near the intersection of S. Zintel Way and W. Hildebrand Drive on the east side of Highway 395. A Washington State Department of Transportation project is currently planned at the intersection of Ridgeline Drive and Highway 395, and it is recommended that these improvements be installed during this roadway improvement project.

CIP WM5: W. Hildebrand Avenue and Ridgeline Drive Dead-end Water Main Looping

Deficiency: Two existing dead-end mains are located in Zone 4 in W. Hildebrand Avenue and Ridgeline Drive, creating water quality deficiencies and restricting fire flow availabilities in the vicinity.

Improvement: Install approximately 1,600 LF of 12-inch water main in S. Sherman Street between W. Hildebrand Avenue and Ridgeline Drive, and approximately 1,850 LF of 12-inch water main in Ridgeline Drive between the ASR Well site and S. Sherman Street.

CIP WM6: W. 10th Avenue Parallel Main Connections

Deficiency: Parallel 8- and 12-inch water main are located in W. 10th Avenue that are not hydraulically connected between Highway 395 and S. Union Street, restricting fire flow availabilities in the vicinity.

Improvement: Provide connections between the existing parallel main at four locations, each requiring approximately 20 LF of 12-inch water main in W. 10th Avenue. The locations are as follows.

- Intersection of W. 10th Avenue and approximately S. Green Street.
- Intersection of W. 10th Avenue and S. Huntington Place.
- Intersection of W. 10th Avenue and S. Moran Street.
- Intersection of W. 10th Avenue and S. Reed Street.

CIP WM7: Columbia Center Mall Loop

Deficiency: Two existing 10-inch-diameter AC dead end main are located on the southeast side of the Columbia Center Mall, restricting fire flow availabilities in the vicinity.

Improvement: Install approximately 130 LF of 12-inch water main in the Columbia Center Mall parking lot to loop the existing water main.

CIP WM8: Red Lion Hotel Loop

Deficiency: Two existing 8-inch-diameter AC dead-end mains are located on the southwest side of the Red Lion Hotel, restricting fire flow availabilities in the vicinity.

Improvement: Install approximately 40 LF of 12-inch water main in the Red Lion Hotel parking lot to loop the existing water main.

CIP WM9: Entiat Avenue to Canal Drive Water Main

Deficiency: A 12-inch-diameter steel main has failed beneath the canal and railroad easements northeast of Canal Drive, near the Tri-City Country Club, leaving a 16-inch-diameter ductile iron main as the primary conveyance route between the City's existing sources and the Golf Course BPS.

Improvement: Abandon the existing 16-inch-diameter ductile iron main and install approximately 1,000 LF of 24-inch water main beneath the canal and railroad easements, between Palouse Street and Canal Drive. Alignment alternatives will be evaluated during the predesign phase of the improvement to minimize the number of canal and railroad crossings. This project has been previously identified by the City, and has been funded within the current biennium.

CIP WM10: 20th Avenue Zone 3 Connection

Deficiency: No water main currently exists in W. 20th Avenue between S. Buchanan Street and S. Arthur Street.

Improvement: Install approximately 550 LF of 8-inch water main in W. 20th Avenue to connect the existing Zone 3 water main and significantly improve fire flow availability in the vicinity.

CIP WM11: Tri-City Heights Water Main Replacement

Deficiency: Water main in the Tri-City Heights area, which is located outside the City limits but is served by the City's water system, is undersized, is constructed of non-standard materials, and is primarily located within easements with difficult access for the City's operations and maintenance staff.

Improvement: Install approximately 36,400 LF of new water main in the Tri-City Heights area that meets the City's current design standards. The majority of the new water main shall be 8-inch-diameter ductile iron water main. All new water main and customer water meters shall be located within public rights-of-way. The City tentatively plans to construct these improvements to coincide with a future possible annexation of the area. The schedule for this annexation, if it were to occur, is unknown.

PRESSURE ZONE IMPROVEMENTS

The following pressure zone improvements are proposed in areas of the City's water service that do not meet the City's pressure standards and will improve low pressure problem areas throughout the water system. A brief description of the existing deficiency and proposed improvement for each project are provided below.

CIP PZ1: Conversion of Zone 1 to Zone 2 near W. Park Hills Drive

Deficiency: As shown in **Table 3-18** of **Chapter 3**, existing customers in the higher elevations of Zone 1 near W. Park Hills Drive have low pressure. These pressures are below the Washington State Department of Health (DOH) minimum requirement of 30 pounds per square inch (psi).

Improvement: Convert the existing Zone 1 customers on S. Jean Street, S. Ione Street, and W. 14th Avenue to Zone 2 to resolve the low pressures in this area. Open an existing in-line zone valve located approximately at 1130 W. 14th Avenue. Install and close an 8-inch-diameter valve in W. Park Hills Drive between S. Ione Street and S. Ione Place.

Close the following existing in-line valves, creating a hydraulic boundary between Zones 1 and 2. If a valve does not exist in these locations, install a closed valve at these locations.

- 1016 W. 14th Avenue.
- Eastside of intersection of S. Ione Street and W. 17th Avenue.
- Northside of intersection of S. Jean Street and W. 19th Avenue.
- Northside of intersection of S. Ione Street and W. 19th Avenue.

CIP PZ2: Conversion of Zone 1 to Zone 2 near Vista Elementary

Deficiency: As shown in **Table 3-20** of **Chapter 3**, minimal fire flow is available at Vista Elementary.

Improvement: Confirm the actual fire flow requirements of the building and the location(s) at which the fire flow is required. For the purposes of this analysis, approximately 390 LF of 8-inch-diameter dead-end water main is proposed to be installed in W. Umatilla Avenue, connecting to existing 8-inch-diameter Zone 2 water main in N. Young Street. This improvement increases the fire flow availability at Vista Elementary to 1,294 gallons per minute (gpm) based on analyses performed for the 6-year planning-period. This represents an increase of 1,229 gpm compared to the 65 gpm available based on the existing system configuration.

CIP PZ3: Conversion of Zone 4 to Zone 5 in S. Olympia Street

Deficiency: As shown in **Table 3-14** of **Chapter 3**, dead storage currently exists in Zone 4, and the zone is projected to have a slight storage deficiency in the 20-year planning period.

Improvement: Following completion of CIP DF6, convert approximately 600 LF of existing dead-end Zone 4 water main in S. Olympia Street to Zone 5. This improvement will reduce the highest Zone 4 service elevation from 846 feet to 808 feet, eliminating Zone 4 dead storage and the projected storage deficiency in the 20-year planning period. An 8-inch PRV is proposed as part of this improvement to have a set point of 905 feet HGL (43 psi) to provide emergency supply to Zone 4. It is recommended that this project take place at the same time as, or immediately following completion of, CIP DF6.

VISTA FIELD EMERGENCY SUPPLY IMPROVEMENTS

Vista Field is located in the western portion of Zone 2, and primarily consists of commercial and industrial land uses. The City anticipates significant growth will occur at Vista Field within the 6-year planning period. Transmission capacity to Vista Field is currently limited to three existing transmission mains that cross the Central Washington Railroad. Three improvement phases have been identified to increase the fire flow availability throughout Vista Field to meet the 4,000 gpm commercial, and 5,000 gpm industrial planning-level fire flow requirements.

CIP VF1: Vista Field – Phase 1 Improvements

Improvement: Install pressure reducing valve (PRV) stations at three locations between Zones 3 and 2 to provide additional supply to the western portion of Zone 2 during emergency conditions. These PRVs will also maintain pressures above 20 psi throughout Zone 2 during emergency conditions. The recommended location, size, and set points for the proposed PRV stations are as follows.

- Intersection of W. Deschutes Avenue and N. Colorado Street
 - Size: 12-inch PRV
 - Set point hydraulic grade line (HGL): 634 feet (approximately 35 psi)
- Intersection of N. Columbia Center Boulevard and W. Grandridge Boulevard
 - Size: 12-inch PRV
 - Set point HGL: 615 feet (approximately 37 psi)
- Near N. Oklahoma Place cul-de-sac
 - Size: 8-inch PRV
 - Set point HGL: 623 feet (approximately 35 psi)

CIP VF2: Vista Field – Phase 2 Improvements

Improvement: Replace approximately 6,400 LF of existing 8-inch-diameter water main with 12- and 16-inch-diameter water main. A summary of the proposed improvements are shown in Table 8-3.

Table 8-3
Vista Field – Phase 2 Improvements

CIP No.	Length (LF)	Existing Diameter	Proposed Diameter	Location Description		
				In	From	To
VF2A	1,236	8"	12"	N Young St	W Grandridge Blvd	W Okanogan Pl
VF2B	1,580	8"	12"	N Young St	W Deschutes Ave	W Grandridge Blvd
VF2C	2,035	8"	12", 16"	N Colorado St	W Deschutes Ave	W Grandridge Blvd
VF2D	1,522	8"	12"	Hood Pl and Parking Lots	N Colorado St	W Grandridge Blvd

CIP VF3: Vista Field – Phase 3 Improvements

Improvement: Replace approximately 14,000 LF of existing 8-inch-diameter water main with 12-inch-diameter water main. Install approximately 800 LF of 12-inch-diameter water main to loop the water main between the east and west sides of Vista Field. A summary of the proposed improvements are shown in **Table 8-4**.

Table 8-4
Vista Field – Phase 3 Improvements

CIP No.	Length (LF)	Existing Diameter	Proposed Diameter	Location Description		
				In	From	To
VF3A	2,173	8"	12"	Vista Field Loop	W Deschutes Ave	W Grandridge Blvd
VF3B	1,204	8"	12"	N Quay St	Railroad	W Deschutes Ave
VF3C	3,495	8"	12"	W Deschutes Ave	N Kellogg St	N Quay St
VF3D	1,319	8"	12"	W Hood Pl	W Okanogan Ave	N Quay St
VF3E	2,595	8"	12"	W Okanogan Ave	N Kellogg St	W Deschutes Ave
VF3F	2,249	8"	12"	W Rio Grande Ave	N Kellogg	W Grandridge Blvd
VF3G	1,553	8"	12"	W John Day Ave	N Kellogg St	W Okanogan Ave
VF3H	953	8"	12"	N Quay St	N Quay St	W Deschutes Ave

PRESSURE REDUCING VALVE STATION IMPROVEMENTS

The following PRV station improvements were identified to resolve existing system deficiencies.

CIP PRV1: S. Kellogg Street and W. 4th Avenue PRV Station (Zone 3 to Zone 2 PRV)

Deficiency: Some of the highest Zone 2 elevations exist in neighborhoods south of W. 4th Avenue and experience pressures at or near 20 psi during Zone 2 fire flow conditions.

Improvement: Install a PRV station at the intersection of S. Kellogg Street and W. 4th Avenue to maintain pressures above 20 psi at the Zone 2 high elevations during fire flow conditions. An 8-inch PRV is proposed to have a set point of 630 feet HGL (30 psi).

As part of this improvement, approximately 925 LF of existing 6-inch-diameter steel water main is recommended to be replaced with 8-inch water main in S. Kellogg Street, between W. 4th Avenue and W. 1st Avenue, to adequately convey flow through the proposed PRV into the Zone 2 distribution system.

CIP PRV2: N. Steptoe Street and Gage Boulevard PRV Station (Zone 3 to Zone 2 PRV)

Deficiency: As growth occurs in Zone 2, additional transmission capacity to the western portion of the pressure zone is needed to meet the domestic and fire flow demands of the pressure zone.

Improvement: Install a PRV station at the intersection of N. Steptoe Street and Gage Boulevard. A 12-inch PRV is proposed to have a set point of 630 feet HGL (50 psi).

Approximately 1,725 LF of 12-inch-diameter water main is required to connect the existing Zone 3 water main in N. Steptoe Street to the proposed PRV.

CIP PRV3: Low Zone 3 Services Residual Pressure Improvements (Zone 4 to Zone 3 PRVs)

Deficiency: The high elevations of Zone 3 located in the commercial area near the intersection of Southridge Boulevard, W. 27th Avenue, and S. Union Street experience pressures at or near 20 psi during Zone 3 fire flow conditions.

Improvement: Install PRV stations at two locations between Zones 4 and 3 to provide pressures in excess of 20 psi throughout Zone 3 during emergency conditions. The recommended location, size, and set points for the proposed PRV stations are as follows. Water main extensions are required to connect the existing Zone 4 water main to the proposed PRV locations. The length and recommended size of the water main improvements are also included below.

- Intersection of W. 27th Avenue and Creekstone Drive
 - Size: 12-inch PRV
 - Set point HGL: 745 feet (approximately 31 psi)
 - Water main: Approximately 530 LF of 12-inch diameter
- In W. Canyon Lakes Drive
 - Size: 8-inch PRV
 - Set point HGL: 754 feet (approximately 31 psi)
 - Water main: Approximately 475 LF of 8-inch diameter

CIP PRV4: Low Zone 3 Hydrant Residual Pressure Improvements (Zone 4 to Zone 3 PRV)

Deficiency: Existing hydrants located at the high elevations of Zone 3 in S. Olympia Street on the transmission main connecting the 54th and Olympia Reservoir to the Zone 3 distribution system experience pressures at or near 20 psi during Zone 3 fire flow conditions.

Improvement: Install a PRV station at the intersection of W. 52nd Avenue and S. Olympia Street. An 8-inch PRV is proposed to have a set point of 744 feet HGL (25 psi). Due to the proximity of Zone 3 and Zone 4 water main at this location, minimal water main improvements are anticipated as part of this improvement project.

FACILITY IMPROVEMENTS

The following water system improvement was identified to resolve future system deficiencies due to projected growth, as presented in **Chapter 3**.

CIP F1: Water Treatment Plant Expansion

Deficiency: The City does not currently have sufficient source capacity to meet the projected demands of the 20-year planning period.

Improvement: The City's existing water treatment plant (WTP) has a maximum capacity of 15 million gallons per day (MGD), but has been designed to be expanded to a maximum capacity of 30 MGD. Although the City's projected 20-year source capacity deficiency is less than 1 MGD with the ASR Well operating at 2,080 gpm (3 MGD), the *2016 Regional Water Supply Feasibility Study* identified an 8 MGD deficiency in the 50-year planning period. Therefore, the WTP is proposed to be expanded to 23 MGD for the purposes of these analyses. The proposed 8 MGD expansion is assumed to utilize membrane filtration to match the treatment method at the existing WTP.

The following improvements are anticipated to increase the treatment capacity to 23 MGD, with some improvements sized to meet a future WTP capacity of 30 MGD, where applicable.

- Installation of a new 15 MGD screen in the Columbia River.
- Increase the intake siphon piping capacity to 30 MGD.
- Replace two existing 3,000 gpm (25 HP) low lift pumps and motors with two 5,300 gpm (40 HP) pumps and motors.
- Construct three additional pretreatment trains in parallel with the two existing pretreatment trains.
- Construct additional membrane basins and membrane equipment with a capacity of 10 MGD (existing basins have 20 MGD capacity, but the City has only purchased 15 MGD of membrane capacity).
- Purchase and install 8 MGD of membrane capacity.
- Construct a 15 MGD clearwell adjacent to the existing clearwell. Modify existing piping to allow existing and proposed clearwells to operate in series.
- Replace two existing 3,000 gpm (250 HP) high service pumps and motors with two 5,300 gpm (400 HP) pumps and motors.
- Increase the capacity of the filter waste washwater system to meet a future WTP capacity of 30 MGD.

Electrical and control improvements, and improvements to other ancillary equipment will also be required. For the purposes of these analyses, it is assumed that the existing WTP operations building and site access, both of which were modified during a previous WTP expansion, are sufficient to accommodate a treatment capacity increase to 30 MGD. It is recommended that the City confirm the necessary improvements during the predesign phase of this project. Permitting costs have been estimated as part of this improvement, but are highly variable due to the number of regulatory agencies that are anticipated to be involved with this project. The permitting, construction, and indirect costs presented for this project are for planning purposes only, and are recommended to be confirmed during the predesign phase of this project.

CIP F2: 18th and Kellogg (10 MG) Reservoir Improvements

Deficiency: Peterson Structural Engineers, Inc., (Peterson) performed a visual condition assessment and structural evaluation of the reservoir in 2014, and found significant defects and vulnerabilities. A summary of the defects and vulnerabilities is presented in **Chapter 3**, which include shrinkage cracking, roof slab deflection and cracking, concrete slab reinforcing strength deficiencies, and inadequate bearing pad thickness.

Improvement: Peterson's evaluation recommended improvements to either remediate or replace the reservoir. The remediation recommendation includes replacement of the roof slab, columns, slab footings, and the reservoir wall base connection, and includes replacement or repair of the reservoir's internal piping and appurtenances. The replacement recommendation includes construction of a new 10.0 MG prestressed concrete reservoir with a membrane floor slab.

Peterson estimated the planning-level cost for the remediation and replacement recommendations to be \$4,740,000 and \$6,250,000, respectively. The City is currently evaluating the improvements to proceed with for the 18th and Kellogg reservoir, but will fund the improvements from the operations and maintenance budget. Due to the applicability of this improvement to the WCP, it has been included here for reference.

CIP F3: PFAS Contamination Improvements

Deficiency: Sampling in 2023 for per- and polyfluoroalkyl substances (PFAS) revealed contamination in Ranney Collector 4 Well (RC4) and Ranney Collector 5 Well (RC5) source water. In addition, levels of perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) in treated water exceeded the U.S. Environmental Protection Agency's (EPA) proposed Maximum Contaminant Level (MCL) of 4 parts per trillion (ppt). In response to March 12, 2024 samples taken at the RC4 and RC5 source that exceeded the PFOS State Action Level of 15 ppt, the City provided a Tier 2 public notice to customers.

Improvement: The City retained RH2 in 2023 to evaluate alternatives to address PFAS contamination at the RC4 and RC5 facilities. Improvement alternatives being evaluated by the City include, but are not limited to, the following:

1. Treat RC4 and RC5 water for PFAS at the RC5 Treatment Facility site with new granular activated carbon (GAC) filters.
2. Convert RC4 and RC5 to surface water intakes near their current locations and treat water onsite/offsite.
3. Build a surface water intake and treatment facility to replace RC4 and RC5 at a new location.
4. Upgrade the Columbia River WTP to expand capacity and replace RC4 and RC5 production.

The City intends to continue to evaluate alternatives to address PFAS contamination as part of feasibility and preliminary design activities. CIP F3 is intended to reflect the improvements determined best suited by the City to address PFAS contamination and the reduced source capacity that the PFAS contamination has caused.

MISCELLANEOUS IMPROVEMENTS

The following miscellaneous improvements are planning efforts and program elements that are required to comply with various Washington State water regulations.

CIP M1: Water Comprehensive Plan Update

Deficiency: The Washington Administrative Code (WAC) 246-290-100 requires that the City's WSP be updated every 6 years and submitted to the DOH for approval. It is anticipated that WCP updates will only be required every 10 years in the future.

Improvement: Update the WCP every 10 years or as required by DOH.

CIP M2: Annual Customer Meter Replacement Program

Deficiency: Individual service meters need to be replaced when they reach the end of their service life or are determined to be malfunctioning.

Improvement: Replace approximately 500 customer meters each year as the meters reach the end of their service life. This is an ongoing program to ensure accurate measuring of water usage in the system.

CIP M3: Water Use Efficiency Program

Deficiency: Several Water Use Efficiency (WUE) measures must be carried out on an ongoing basis to comply with WUE requirements, including customer education, meter calibration, and replacement.

Improvement: The City will continue to perform ongoing WUE measures, as outlined in the Water Use Efficiency Program included in **Chapter 4**.

CIP M4: Redundant Pumps and Motors

Deficiency: As the City's water system grows, it will become increasingly reliant upon the pumping equipment at each pumping facility. Many of the pumps and motors in the City's water system are custom-sized for the current application, and have multiple-week lead times in the event that the equipment fails beyond repair and the City is in need of a new pump or motor.

Improvement: The City will endeavor to purchase a redundant pump and motor sufficiently sized to replace the most critical pump in each pressure zone, which is typically the pump with the greatest pumping capacity. The City is funding the purchase of the redundant pumping equipment from the operations and maintenance budget, but due to the applicability of this improvement to the WCP, it has been included here for reference.

CIP M5: Emergency Portable Generators

Deficiency: Of the City's existing pumping facilities, only the City's 46th and Olson BPS (Canyon Lakes BPS) and the Zone 6 BPS have permanent emergency generators. The City's water department has a limited number of portable emergency generators, none of which have sufficient capacity to power any of the City's existing pumping facilities at their full pumping rate.

Improvement: The City will endeavor to purchase multiple emergency portable generators to allow source facilities and BPSs to pump a sufficient volume of water to each pressure zone in the event of a prolonged power outage. The minimum pumping requirements through the 20-year planning period for each pressure zone are presented in **Chapter 3** of this WCP. The City will evaluate the generator sizing requirements based on these pumping requirements, and will make a policy decision regarding the number of emergency portable generators needed to meet various emergency scenarios. The City is funding the purchase of the emergency portable generators from the operations and maintenance budget, but due to the applicability of this improvement to the WCP, it has been included here for reference.

CIP M6: Pump and Motor Condition Assessment

Deficiency: The wire-to-water efficiency, energy signature, and vibration characteristics of the pumps and motors in each of the City's pumping facilities was evaluated in October 2015. It is recommended that the condition of each pump and motor be retested and reevaluated every

3 to 5 years, using the data collected in October 2015 as a baseline to evaluate pump and motor degradation over the service life of the equipment.

Improvement: Assess the condition of each pump and motor in 2019 or 2020. Funding for the testing and evaluation will be provided from the City's operations and maintenance budget, but due to the applicability of this improvement to the WCP, it has been included here for reference.

DEVELOPER-FUNDED IMPROVEMENTS

The following water system facility improvement primarily consist of costs borne by developers, rather than the existing water customers, unless over-sizing the improvements provides benefit to the existing customers. Improvements have been identified for the areas mostly likely to develop within the City's water service area within the 20-year planning horizon. The improvements listed illustrate the major facilities that will be required to properly serve those areas. The locations of the facilities are shown schematically in **Figure 8-3**.

CIP DF1: Future Development Benefit to Existing Customers

Deficiency: Future improvements constructed for new developments may provide benefit to existing water customers. Examples of benefits include improved water quality, redundancy, and fire flow availability.

Improvement: As water system improvements are designed and constructed for new developments, determine the benefit to existing water customers, if any. An allowance of \$1,130,000 per year has been estimated to be attributed to providing benefit to existing customers for each year within the 10-year planning period. The resulting 10-year total cost is equivalent to 5 percent of the total estimated cost of the developer-funded improvements presented in this chapter.

CIP DF2: Southwest Zone 5 Water Main

Deficiency: Development that occurs in the currently vacant land in the southwest portion of the City's water service area will require 12- and 16-inch water main to be extended from the existing Zone 5 transmission system at the intersection of S. Sherman Street and Ridgeline Drive.

Improvement: Upon further development of the adjacent properties, install 12- and 16-inch water main from the intersection of S. Sherman Street and Ridgeline Drive to the existing canal approximately 1,400 feet south (12-inch-diameter water main), and from this point, west approximately 5,500 feet (16-inch-diameter water main). A PRV station is proposed at this location to provide supply to future Zone 4 water customers, and is described in CIP DF4.

CIP DF3: Proposed Zone 5 Reservoir and Water Main

Deficiency: Development that occurs in the currently vacant land in the southwest portion of the City's water service area served by the proposed water main described in CIP DF2, will require a future Zone 5 Reservoir to provide storage for the proposed development.

Improvement: Upon further development of the adjacent properties and completion of CIP DF2, install approximately 5,300 LF of 16-inch water main to connect the future development to a proposed Zone 5 Reservoir. The reservoir will have capacity to satisfy the DOH storage component requirements for the operating area, which is estimated to have a 0.97 million gallon (MG) deficiency in the 20-year planning period, as shown in **Table 3-15** of **Chapter 3**. With consideration to additional demands between the 20-year planning period and buildout, a 1.5 MG reservoir has been

proposed for the purposes of this analysis. The actual reservoir capacity and configuration will be determined during the preliminary design phase of the project when more information is available about the area to be served.

CIP DF4: Zone 4 Water Main and PRV Station

Deficiency: Development that occurs in the currently vacant land in the southwest portion of the City's water service area that is located at elevations too low to be served by the proposed Zone 5 water main described in CIP DF2, will require 12-inch water main to be extended from the existing Zone 4 transmission system in S. Sherman Street and the westernmost water main of the proposed CIP DF2 Zone 5 water main.

Improvement: Upon further development of the adjacent properties, install approximately 11,000 LF of 12-inch water main in S. Sherman Street, Bob Olson Parkway, and currently vacant land. A 12-inch PRV is proposed to have a set point of 895 feet HGL to reduce the pressure from the Zone 5 water main (CIP DF2).

CIP DF5: Zone 3 Water Main and PRV

Deficiency: Development that occurs in the currently vacant land in the southwest portion of the City's water service area that is located at elevations too low to be served by the proposed Zone 4 water main described in CIP DF4, will require 12-inch water main to be extended from the proposed Zone 4 transmission system located south of the City's existing Zone 3 Kansas Reservoir.

Improvement: Upon further development of the adjacent properties, install approximately 6,000 LF of 12-inch water main in Bob Olson Parkway. A 12-inch-diameter PRV is proposed in W. Hildebrand Road to provide supply to future Zone 3 water customers from the proposed Zone 4 water main described in CIP DF4. A 12-inch PRV is proposed to have a set point of 760 feet HGL to reduce the pressure from the Zone 4 water main (CIP DF4).

CIP DF6: Zone 3 Clodfelter Road and W. 10th Avenue Water Main

Deficiency: Development that occurs adjacent to S. Clodfelter Road and adjacent to W. 10th Avenue between W. Clearwater Avenue and S. Clodfelter Road will require 16-inch water main to be extended from the existing Zone 3 transmission system at the roundabout at the intersection of W. 10th Avenue, S. Clodfelter Road, and Bob Olson Parkway.

Improvement: Upon further development of the adjacent properties, install approximately 8,700 LF of 16-inch water main in S. Clodfelter Road and W. 10th Avenue. This proposed water main will eliminate an existing dead-end water main and provide looped supply to existing Zone 3 customers located near the intersection of W. Clearwater Avenue and Ridgeline Drive, improving water quality and fire flow availability in this portion of the distribution system.

CIP DF7: Southeast Zone 5 Water Main

Deficiency: Development that occurs in the currently vacant land in the southeast portion of the City's water service area will require 12-inch water main to be extended from the existing Zone 5 transmission system.

Improvement: Upon further development of the adjacent properties, install approximately 13,000 LF of 12-inch water main from the existing Zone 5 Reservoir site to approximately S. Olympia Street, and connect to the proposed PRV described in CIP DF8. This proposed PRV will provide

looped emergency supply to the proposed Zone 5 water main. The layout of the water main will be determined in the future by the location of roadways for the new development.

CIP DF8: Zone 6 East Booster Pump Station, Reservoir, PRV, and Water Main

Deficiency: Development that occurs in the currently vacant land in the southeast portion of the City's water service area will not be adequately served by the proposed Zone 5 water main extension (CIP DF7).

Improvement: Install a new pump station at the existing Zone 5 Reservoir site to provide domestic and fire flow supply for the proposed development, and a new Zone 6 East Reservoir to provide storage for the proposed development. Install water main as needed to adequately provide supply to the proposed development, which is assumed to be approximately 10,600 LF of 12-inch diameter for the purposes of this analysis. The layout of the water main will be determined in the future by the location of roadways for the new development. A 12-inch PRV is proposed to be located at the eastern extent of the proposed water main, approximately in S. Olympia Street, to eliminate a long dead-end main within the Zone 6 piping and provide looped emergency supply to the proposed Zone 5 water main improvements described in CIP DF7.

The pump station will have a maximum capacity to satisfy the largest fire flow requirement and peak water demand of the operating area, estimated at approximately 1,300 gpm, which includes Zone 6 and a future Zone 7 described in CIP DF9. The recommended pump arrangement is two smaller pumps for providing domestic service and one larger pump to provide fire flow and peak demand supply. The actual pump capacities and final configuration will be determined during the preliminary design phase of the project when more information is available about the area to be served. The proposed BPS shall be equipped with a permanent emergency power supply.

The reservoir will have a capacity to satisfy DOH storage component requirements for the operating area, estimated to be 0.64 MG in the 20-year planning period. With consideration to additional demands between the 20-year planning period and buildout, a 0.75 MG reservoir has been proposed for the purposes of this analysis. The actual reservoir capacity and configuration will be determined during the preliminary design phase of the project when more information is available about the area to be served.

CIP DF9: Zone 7 East Booster Pump Station and Water Main

Deficiency: Development that occurs in the highest elevations of the currently vacant land in the southeast portion of the City's water service area will not be adequately served by the proposed Zone 6 water main extension (CIP DF8).

Improvement: Install a new pump station to provide domestic and fire flow supply for the proposed development. Install water main as needed to adequately provide supply to the proposed development, which is assumed to be approximately 4,200 LF of 12-inch diameter for the purposes of this analyses. The layout of the water main will be determined in the future by the location of roadways for the new development.

The pump station will have a maximum capacity to satisfy the largest fire flow requirement and peak water demand of the zone, estimated at approximately 1,200 gpm. The recommended pump arrangement is two smaller pumps for providing domestic service and one larger pump to provide fire flow and peak demand supply. The actual pump capacities and final configuration will be determined during the preliminary design phase of the project when more information is available

about the area to be served. The proposed BPS shall be equipped with a permanent emergency power supply.

CIP DF10: Zone 6 South Booster Pump Station, Reservoir, and Water Main

Deficiency: Development that occurs in the currently-vacant land in the southwest portion of the City's water service area will not be adequately served by the proposed Zone 5 Reservoir and water main extension (CIP DF3).

Improvement: Install a new pump station at the proposed Zone 5 Reservoir site to provide domestic and fire flow supply for the proposed development, and a new Zone 6 South Reservoir to provide storage for the proposed development. Install water main as needed to adequately provide supply to the proposed development, which is assumed to be approximately 4,500 LF of 12-inch diameter for the purposes of this analysis. The layout of the water main will be determined in the future by the location of roadways for the new development.

The pump station will have a maximum capacity to satisfy the largest fire flow requirement and peak water demand of the operating area, estimated at approximately 1,200 gpm, which includes Zone 6 and a future Zone 7 described in CIP DF11. The recommended pump arrangement is two smaller pumps for providing domestic service and one larger pump to provide fire flow and peak demand supply. The actual pump capacities and final configuration will be determined during the preliminary design phase of the project when more information is available about the area to be served. The proposed BPS shall be equipped with a permanent emergency power supply.

The reservoir will have a capacity to satisfy DOH storage component requirements for the operating area, estimated to be 0.64 MG in the 20-year planning period. With consideration to additional demands between the 20-year planning period and buildout, a 0.75 MG reservoir has been proposed for the purposes of this analysis. The actual reservoir capacity and configuration will be determined during the preliminary design phase of the project when more information is available about the area to be served.

CIP DF11: Zone 7 South Booster Pump Station and Water Main

Deficiency: Development that occurs in the highest elevations of the currently vacant land in the southwest portion of the City's water service area will not be adequately served by the proposed Zone 6 water main extension (CIP DF10).

Improvement: Install a new pump station to provide domestic and fire flow supply for the proposed development. Install water main as needed to adequately provide supply to the proposed development, which is assumed to be approximately 9,200 LF of 12-inch diameter for the purposes of this analyses. The layout of the water main will be determined in the future by the location of roadways for the new development.

The pump station will have a maximum capacity to satisfy the largest fire flow requirement and peak water demand of the zone, estimated at approximately 1,200 gpm. The recommended pump arrangement is two smaller pumps for providing domestic service and one larger pump to provide fire flow and peak demand supply. The actual pump capacities and final configuration will be determined during the preliminary design phase of the project when more information is available about the area to be served. The proposed BPS shall be equipped with a permanent emergency power supply.

CIP DF12: Christenson Road Water Main

Deficiency: Development that occurs in the currently vacant land adjacent to Christenson Road, between Southridge Boulevard and Ridgeline Drive will require 16-inch water main to be extended from the existing Zone 5 transmission system.

Improvement: Upon further development of the adjacent properties, install approximately 2,600 LF of 16-inch water main in Christenson Road, between the existing Zone 5 transmission main in Southridge Boulevard and Ridgeline Drive.

ESTIMATING COSTS OF IMPROVEMENTS

Project costs for the proposed improvements are presented in second quarter 2016 dollars and include the estimated construction cost of the improvement and indirect costs estimated at 35 percent of the construction cost for engineering preliminary design, final design, and construction management, permitting, legal, and administrative services. The project cost estimates include a 20-percent contingency and sales tax of 8.6 percent, and are shown for each water main diameter in **Table 8-5**. Construction cost estimates for water main projects were determined from the water main unit costs (i.e., cost per linear foot) shown in **Table 8-5** and the proposed diameter and approximate length of each improvement.

Table 8-5
Water Main Unit Costs

Water Main Diameter (inches)	Project Cost Per Foot Length (2016 \$/LF)
6	\$162
8	\$167
10	\$171
12	\$173
16	\$183
20	\$194
24	\$202

The unit costs for each water main size are based on estimates of all construction related improvements, such as materials and labor for the water main installation; water services; fire hydrants; fittings; valves; connections to the existing system; trench restoration; asphalt surface restoration; and other work for a complete installation. Additional costs were added to some water main improvements to cover anticipated increased costs related to the project location and degree of difficulty.

PRIORITIZING IMPROVEMENTS

The water system improvements were prioritized from established criteria to identify projects with the most deficiencies and greatest need for improvement. A description of the criteria and method for prioritizing each category of improvements is provided in the following section.

WATER MAIN IMPROVEMENTS

Table 8-6 lists criteria that were established for prioritizing the water main improvements. The criteria are based on the underlying deficiencies of the existing water main that will be replaced by the proposed improvements. The criteria are arranged in five different categories with a weight factor assigned to each category. The Existing Water Main Maintenance/Breaks and the Existing Water Main Fire Flow Capability categories were given the most weight.

Table 8-6
Water Main Improvements Priority Ranking Criteria

Points	Category	Weight Factor	Weighted Points
Existing Water Main Maintenance/Breaks			
5	High Maintenance Requirements/High Frequency of Recent Breaks	3	15
3	Annual Maintenance/Recent History of Breaks	3	9
0	No Maintenance and No History of Problems	3	0
Existing Water Main Fire Flow Capability			
5	Derated Fire Flow is 59% or less of Required Fire Flow	3	15
4	Derated Fire Flow is 60-69% of Required Fire Flow	3	12
3	Derated Fire Flow is 70-79% of Required Fire Flow	3	9
2	Derated Fire Flow is 80-89% of Required Fire Flow	3	6
1	Derated Fire Flow is 90-99% of Required Fire Flow	3	3
0	Derated Fire Flow is 100% of Required Fire Flow	3	0
Existing Water Main Material			
5	Galvanized or Steel	2	10
4	Asbestos Cement	2	8
3	Copper or Unknown	2	6
2	HDPE	2	4
1	Cast Iron	2	2
0	Ductile Iron or PVC	2	0
Existing Water Main Year of Installation			
5	Before 1950	2	10
4	1950-1959	2	8
3	1960-1969	2	6
2	1970-1979	2	4
1	1980-1989	2	2
0	After 1989	2	0
Existing Water Main Benefit Area¹			
5	Large Benefit Area (greater than 500 gpm)	1	5
4	Large Area Served (250 to 500 gpm)	1	4
3	Medium to Large Area Service (100 to 250 gpm)	1	3
2	Medium Area Served (50 to 100 gpm)	1	2
1	Small to Medium Area Served (25 to 50 gpm)	1	1
0	Small or Localized Area Served (less than 25 gpm)	1	0

(1) Flows based on existing maximum day demands.

The Existing Water Main Maintenance/Breaks category ranks the water main improvements based on the number of reported leaks, breaks, or maintenance required by the City since 2012. The Existing Water Main Fire Flow Capability category ranks the water main improvements based on the ability of the existing water mains to provide the required fire flow, as determined from the results of the hydraulic analyses addressed in **Chapter 3**. The Existing Water Main Material category ranks the water main improvements based on the material of the existing water main. The Existing Water Main Year of Installation category ranks the water main improvements based on the age of the existing water main. The Existing Water Main Benefit Area category ranks the water main improvements based on the size of the area that will benefit from the water main replacement.

The water main priority ranking criteria was applied to the water main replacement projects, which are listed as CIP 1 through CIP 154. The water main replacement projects are presented in **Table 8-7** with their priority ranking, and are also shown in **Figure 8-3**.

Table 8-7
CIP WM1: Fire Flow Deficiency Water Main Replacement Program Inventory

CIP No.	Water Main Properties			Location Description			Estimated Cost	Priority
	Length (LF)	Prop. Diam.	Existing Material	In	From	To		
1	662	8"	AC, DI	S Verbena St	E 3rd Ave	E 1st Ave	\$111,000	H
2	1,772	12"	AC, DI	Easement	E 7th Ave	E 7th Ave	\$229,000	M
3	2,048	12"	AC, Steel	Fairgrounds Loop	Fairgrounds	Fairgrounds	\$355,000	H
4	2,982	12"	AC	N & S Oak St	E 3rd Ave	N Oak St	\$517,000	H
				Industrial	N Oak St	E Columbia Dr		
5	2,152	12"	AC, Steel	E Columbia Dr	Railroad	N Gum St	\$373,000	H
				N Juniper St	E Bruneau Ave	E Columbia Dr		
6	1,147	12"	AC	Industrial	E Chemical Drive	Driveway	\$199,000	H
7	3,443	12"	PVC	E Bruneau Ave	N Washington St	N Juniper St	\$597,000	M
8	898	12"	Steel	S Gum St	E 5th Ave	E 3rd Ave	\$156,000	H
9	975	12"	AC, Steel	E 10th Ave	S Date St	S Gum St	\$169,000	L
10	476	12"	PVC	N Gum St	E Bruneau Ave	E Columbia Dr	\$83,000	L
11	631	12"	AC, PVC	E Columbia Dr	N Elm St	N Gum St	\$110,000	L
12	365	16"	PVC	Driveway	E 3rd Ave	E 2nd Ave	\$67,000	L
13	1,296	12"	AC, Steel	N Date St	E Kennewick Ave	Driveway	\$225,000	H
				Industrial	N Date St	N Alder St		
14	1,724	12"	AC, DI, PVC	E 1st Ave	S Date St	Easement	\$299,000	M
				Driveway	Easement	S Alder Street		
				Easement	Driveway	E Kennewick Ave		
				E Kennewick Ave	Easement	S Beech St		
				Easement	E 1st Ave	Driveway		
15	Removed During WCP Review Process							
16	1,336	8"	AC	E 36th Ave	S Auburn St	E 35th Pl	\$224,000	H
17	889	8"	AC	S Beech St	E 14th Ave	E 11th Ave	\$149,000	L
18	1,118	12"	AC	Comm. Driveway	S Washington St	S Alder St	\$194,000	H
				S Alder St	Commercial Driveway	N Alder St		
				Comm. Driveway	S Alder St	S Washington St		
19	3,271	12"	AC, CI, Steel	S Washington St	W 4th Ave	W 10th Ave	\$567,000	M
				W 7th Ave	S Washington St	S Auburn St		
				S Auburn St	W 7th Ave	W 6th Ave		
20	2,653	12"	AC, Steel	W 10th Ave	S Garfield St	S Washington St	\$460,000	M
21	1,038	12"	CI, PVC, Steel	S Washington St	E Kennewick Ave	W Railroad Ave	\$180,000	H
22	2,373	12"	PVC	Driveway	S Fruitland St	S Washington St	\$411,000	M
23	724	12"	Steel	W 6th Ave	S Auburn St	S Washington St	\$126,000	H
24	2,054	8", 12"	AC, DI	Easement	W 4th Ave	S lone St	\$351,000	L
				W 4th Ave	S Washington St	S Auburn St		
				S Auburn St	W 4th Ave	W 2nd Ave		
25	1,488	12"	AC, Galv	Comm. Driveway	S Dayton St	S Washington St	\$258,000	H

Table 8-7 (Continued)
CIP WM1: Fire Flow Deficiency Water Main Replacement Program Inventory

CIP No.	Water Main Properties			Location Description			Estimated Cost	Priority
	Length (LF)	Prop. Diam.	Existing Material	In	From	To		
26	718	12"	AC	Comm. Driveway	S Benton St	S Washington St	\$125,000	H
27	788	12"	AC	W Deschutes Ave	N Benton St	W Columbia Dr	\$137,000	L
28	1,162	12"	Steel	W Columbia Dr	N Benton St	W Entiat Ave	\$202,000	H
29	419	12"	PVC	Comm. Driveway	S Cascade St	S Benton St	\$73,000	L
30	1,128	12"	AC, CI, Galv, Steel	S/N Cascade St	W 2nd Ave	W Canal Drive	\$196,000	H
31	349	12"	AC	Comm. Driveway	N Dayton St	N Cascade St	\$61,000	H
32	1,259	12"	AC, CI	W Deschutes Ave	W Columbia Dr	N Fruitland St	\$218,000	M
33	1,041	12"	AC	W Albany Ave	N Fruitland St	S Dayton St	\$181,000	H
34	823	12"	PVC	N Dayton St	W Albany Ave	Driveway	\$143,000	L
35	1,811	12"	AC, DI, PVC	Driveway	N Fruitland St	N Dayton St	\$314,000	L
36	450	12"	AC	W 10th Ave	Driveway	Driveway	\$78,000	H
37	656	12"	AC	N Everett St	W Entiat Ave	W Grand Ronde Ave	\$114,000	H
38	796	12"	DI	W Grand Ronde Ave	N Fruitland St	N Everett St	\$138,000	M
39	2,586	12"	PVC	W Columbia Dr	N Fruitland St	W Grand Ronde Ave	\$448,000	L
40	1,496	12"	PVC	W 4th Ave	S Kent St	S Garfield St	\$260,000	L
41	767	12"	AC, PVC	W Vineyard Dr	S Garfield St	W 1st Ave	\$133,000	L
42	1,668	12"	AC	W 1st Ave	S Fruitland St	S Dayton St	\$289,000	H
43	949	12"	AC	W Kennewick Ave	W Carmichael Dr	S Dayton St	\$165,000	H
44	2,972	12"	PVC	S Fruitland St	W 1st Ave	W Albany Ave	\$515,000	H
45	657	12"	AC	N Fruitland St	W Albany Ave	W Entiat Ave	\$114,000	M
46	1,768	12"	AC, PVC	N Fruitland St	W Entiat Ave	W Columbia Dr	\$307,000	L
47	2,195	12"	AC, PVC	W Grand Ronde Ave	N Olympia St	N Fruitland St	\$381,000	M
48	1,325	8"	Unknown	W Columbia Dr	N Hartford St	N Fruitland St	\$222,000	M
49	1,386	8", 12"	AC, PVC	W Canal Dr	W Bruneau Pl	N Fruitland St	\$235,000	L
50	924	12"	AC, PVC	S Garfield St	W 6th Ave	W Kennewick Ave	\$160,000	L
51	2,409	12"	AC, PVC, Steel	Easement	W 4th Ave	S Garfield St	\$418,000	M
52	2,116	12"	AC	N Garfield St	W Grand Ronde Ave	W Columbia Dr	\$367,000	L
53	1,417	12"	PVC, Steel	N Jean St	W Entiat Ave	W Grand Ronde Ave	\$246,000	L
54	713	8"	Steel	Driveway	W Entiat Ave	W Grand Ronde Ave	\$120,000	L
55	2,083	12"	PVC	N Hartford St	W Grand Ronde Ave	W Klamath Ave	\$361,000	M
56	1,203	12"	AC	Easement	W Metaline Ave	W Klamath Ave	\$209,000	M
57	1,440	8"	Steel	W Klamath Ave	Easement	N Hartford St	\$242,000	H
58	357	12"	Steel	W 5th Ave	S Olympia St	S lone St	\$62,000	H
59	608	8"	Steel	N Kent Pl	W Klamath Ave	W John Day Ave	\$102,000	H
60	970	8"	Steel	W John Day Ave	N Kent Pl	N Hartford St	\$163,000	H
61	1,329	8"	Galv	W Albany Ave	W Kennewick Ave	N Jean St	\$223,000	H
62	156	8"	Steel	W Metaline Ave	US Highway 395	N Jean St	\$27,000	H
63	838	8"	Steel	N Jean St	W Metaline Ave	W Klamath Ave	\$141,000	H
64	592	8"	Steel	Easement	S Olympia St	W 22nd Ave	\$100,000	H
65	526	12"	PVC	W 7th Pl	S Rainer St	W 9th Ave	\$92,000	L
66	953	12"	PVC, Steel	S Quincy St	W 1st Ave	W Kennewick Ave	\$166,000	L
67	2,368	12"	AC, PVC	N Quincy Pl	W Canal Dr	W Clearwater Ave	\$411,000	L
68	655	8"	Steel	W Clearwater Ave	N Quincy Pl	N Quincy St	\$110,000	M
69	1,359	8"	Steel	Easement	W 3rd Ave	W Kennewick Ave	\$228,000	M
70	1,275	12"	PVC	Easement	S Vancouver St	S Sharron St	\$221,000	L
				Easement	W 2nd Ave	W Kennewick Ave		
				Easement	Private property	W 2nd Ave		
				W 9th Ave	S Vancouver St	S Sharron St		
				W 1st Ave	S Vancouver St	S Underwood St		
				S Underwood St	W 1st Ave	W Kennewick Ave		
				S Vancouver St	W 21st Ct	W 19th Ave		
				Easement	W 5th Ave	W 4th Ave		
				N Dennis St	W Clearwater Ave	W Deschutes Ave		
				W Entiat Ave	W Deschutes Ave	N Dennis Pl		
				N Dennis Pl	W Entiat Ave	W Falls Ave		
				W Falls Ave	N Dennis Pl	N Yelm St		
				W 15th Ave	Driveway	S Yelm St		
				Easement	S 9th Ave	S Conway St		
				S Conway St	Easement	W 8th Ave		
				Easement	W 8th Ave	W 7th Ave		
				Vista Way	W Kennewick Ave	N Dennis St		
				N Dennis St	Vista Way	W Clearwater Ave		

Table 8-7 (Continued)
CIP WM1: Fire Flow Deficiency Water Main Replacement Program Inventory

CIP No.	Water Main Properties			Location Description			Estimated Cost	Priority
	Length (LF)	Prop. Diam.	Existing Material	In	From	To		
71	1,249	8"	Galv, Steel	S Dennis Pl	W 4th Pl	W 5th Ave	\$210,000	M
				W 5th Ave	S Dennis Pl	S Dennis St		
				S Dennis St	W 5th Ave	W 4th Pl		
72	484	8"	AC	W Grand Ronde Ave	N Fisher St	N Ely St	\$82,000	L
				N Ely St	W Grand Ronde Ave	W Hood Ave		
				N Huntington St	W Kennewick Ave	W Clearwater Ave		
73	5,116	12"	AC, Steel	Comm. Driveway	W Kennewick Ave	W Clearwater Ave	\$886,000	H
				Parking Lot	W Kennewick Ave	W Clearwater Ave		
				N Ely St	W Kennewick Ave	W Clearwater Ave		
				S Huntington St	W Kennewick Ave	W 2nd Ave		
74	2,701	12"	AC	W 2nd Ave	S Huntington St	S Green St	\$468,000	L
				W 2nd Ave	S Green St	S Ely St		
				Comm. Driveway	S Huntington St	S Ely St		
				W 2nd Ave	W Green St	Commercial Driveway		
75	710	12"	AC	Driveway	W 7th Ave	W 4th Ave	\$123,000	M
76	1,323	10"	AC	Driveway	W 7th Ave	W 4th Ave	\$227,000	L
77	826	12"	Steel	Easement	W Clearwater Ave	W Grand Ronde Ave	\$144,000	H
78	1,404	8"	Steel	N Green Pl	W Hood Ave	W Grand Ronde Ave	\$236,000	H
				W Grand Ronde Ave	N Green Pl	N Fisher Pl		
				N Fisher Pl	W Grand Ronde Ave	W Hood Ave		
79	1,447	8"	Galv, Steel	W Metaline Pl	N Keller St	N Irby St	\$243,000	H
				W Metaline Pl	N Huntington St	N Green St		
				N Green St	W Metaline Pl	W John Day Ave		
80	999	8"	Steel	S Huntington Pl	W 4th Ave	S Green Pl	\$168,000	H
				S Green Pl	S Huntington Pl	W 4th Ave		
81	627	12"	AC	Easement	W 19th Ave	W 18th Ave	\$109,000	M
				W 18th Ave	Easement	S Huntington Pl		
82	1,983	10"	AC	S Johnson St	W 4th Ave	End of S Johnson St	\$340,000	M
				W 3rd Pl	S Johnson St	S Keller St		
				Apartment Complex	S Johnson St	S Irby St		
				S Irby St	Apartment Complex	W 4th Ave		
83	1,536	12"	AC	N Johnson St	W Clearwater Ave	Commercial Driveway	\$266,000	M
				Loop, Parking Lot	N Johnson St	N Johnson St		
				N Johnson St	Commercial Driveway	W Hood Ave		
84	879	10"	Steel	Easement	S Morain St	W Kennewick Ave	\$151,000	H
85	593	10"	AC	Comm. Loop	W Kennewick Ave	W Clearwater Ave	\$102,000	L
86	635	16"	AC	W 19th Ave	S Olson St	Nocturne Ln	\$116,000	M
87	1,050	12"	AC	N Morain St	W Clearwater Ave	N Neel St	\$182,000	M
88	984	12"	PVC	N Morain St	W Kennewick Ave	W Clearwater Ave	\$171,000	M
89	302	8"	Steel	W Kennewick Ave	N Neel St	N Morain St	\$51,000	H
90	831	12"	Unknown	S Olson St	W 28th Ave	W 27th Ave	\$144,000	M
				S Quillan St	W 27th Ave	W 28th Ave		
91	1,851	12"	PVC	W 28th Ave	S Quillan St	S Olson St	\$321,000	M
				W 27th Ave	Driveway	S Olson St		
92	1,082	12"	Unknown	W 27th Ave	Driveway	S Olson St	\$188,000	M
93	1,312	12"	AC	N Neel St	W Clearwater Ave	W Hood Ave	\$228,000	L
94	1,239	8"	AC, Galv	S Olson St	W 19th Ave	W 15th Ave	\$208,000	M
95	480	12"	AC	Parking Lot	N Perry St	W Clearwater Ave	\$84,000	M
96	1,651	8"	Steel	S Reed St	W Kennewick Ave	W 2nd Ave	\$277,000	H
				W 2nd Ave	S Reed St	S Quillan St		
97	564	8"	Steel	W Kennewick Ave	N Sheppard Pl	S Quillan St	\$95,000	L
98	1,152	8"	Galv	N Perry Loop	W Payette Ave	W Payette Ave	\$193,000	H
99	125	12"	PVC	W Clearwater Ave	N Quillan St	Driveway	\$22,000	M
100	2,521	8"	AC	N Tweedt St	W Hood Ave	N Sheppard St	\$423,000	M
				W Klamath Ave	N Sheppard St	N Sheppard St		
				N Sheppard St	W Klamath Ave	W John Day Pl		
				W John Day Pl	N Sheppard St	N Tweedt St		
101	240	12"	Unknown	S Union St	Creekstone Dr	W 26th Ave	\$42,000	H
102	Removed During WCP Review Process							
103	967	12"	Unknown	S Union St	W 21st Ave	W 19th Ave	\$168,000	L
				S Union St	W 26th Ave	Driveway		
104	1,514	12"	PVC	W 24th Ave	W 24th Pl	S Union St	\$263,000	L
105	1,364	12"	Unknown	Creekstone Dr	S Union St	W 26th Ave	\$237,000	M
				S Williams Pl	Creekstone Dr	Union St		

Table 8-7 (Continued)
CIP WM1: Fire Flow Deficiency Water Main Replacement Program Inventory

CIP No.	Water Main Properties			Location Description			Estimated Cost	Priority
	Length (LF)	Prop. Diam.	Existing Material	In	From	To		
106	904	12"	AC	N Volland St	W Kennewick Ave	W Clearwater Ave	\$157,000	L
107	1,814	12"	PVC	Storage Facility Loop	W 24th Ave	W 24th Ave	\$315,000	L
				Storage facility	W 24th Ave	Back of facility		
108	543	12"	PVC	W Clearwater Ave	N Zinser St	N Williams St	\$95,000	L
109	2,609	8"	AC	Easement	W Clearwater Ave	C St	\$437,000	H
				D St	C St	N Zinser St		
				N Zinser St	D St	W Clearwater Ave		
110	828	12"	AC	N Arthur St	W Clearwater Ave	Driveway	\$144,000	M
111	2,181	8"	AC	Loop	N Edison St	N Edison St	\$366,000	M
				Easement	N Edison St	N Arthur St		
112	970	12"	Unknown	W Okanogan St	N Edison St	N Cleveland St	\$168,000	M
				Easement	W Metaline Ave	W Okanogan St		
113	1,929	8"	Steel	W 4th Ave	W Jefferson St	S Edison St	\$323,000	M
114	763	12"	PVC	W Hood Ave	North Grant St	N Edison St	\$133,000	L
115	850	12"	Unknown	Parking Lot	W Clearwater Ave	N Irving St	\$148,000	H
116	Removed During WCP Review Process							
117	1,311	10"	AC	N McKinley St	W 1st Ave	W Clearwater Ave	\$225,000	H
118	1,295	12"	AC	Comm.	W Quay St	W Clearwater Ave	\$225,000	M
119	3,501	12"	AC, PVC	Parking Lot	W Grandridge Blvd	N Kellogg St	\$607,000	M
				Comm. Loop	W Grandridge Blvd	W Grandridge Blvd		
120	1,520	12"	AC	W Clearwater Ave	N Taft St	N Quay St	\$264,000	M
121	1,053	12"	AC	W Kennewick Ave	S Taft St	N Quay St	\$183,000	L
122	5,536	12"	AC, DI	W Deschutes Ave	Driveway	N Columbia Center Blvd	\$959,000	M
123	44	12"	PVC	Ridgeline Dr	W 36th Ave	12" Water Main	\$8,000	L
124	2,281	12"	AC, PVC	W 1st Ave	S Young St	S Taft St	\$395,000	L
				N & S Taft St	W 1st Ave	W Clearwater Ave		
125	893	12"	PVC	Traffic Roundabout	W Grandridge Blvd	W Grandridge Blvd	\$155,000	L
				W Grandridge Blvd	W Okanogan Pl	W Canal Dr		
126	541	12"	AC	N & S Van Buren St	W 1st Ave	W Clearwater Ave	\$94,000	L
127	2,090	12"	PVC	Comm. Loop	W Grandridge Blvd	W Grandridge Blvd	\$362,000	L
128	1,944	12"	AC	W Quinault Ave	N Columbia Center Blvd	N Young St	\$337,000	H
129	1,936	12"	PVC	Comm. Loop	W Okanogan Pl	W Quinault Ave	\$336,000	L
130	1,052	12"	AC	N Colorado St	Driveway	W Okanogan Pl	\$183,000	H
				W Okanogan Pl	N Colorado St	W Quinault Ave		
131	1,044	12"	PVC	Loop around Bldg.	S Columbia Center Blvd	S Columbia Center Blvd	\$181,000	H
132	1,531	12"	PVC	Comm. Bldg. Loop	W 10th Ave	S Columbia Center Blvd	\$266,000	M
133	1,133	12"	AC	W Kennewick Ave	S Columbia Center Blvd	S Colorado St	\$197,000	L
				N Colorado St	W Kennewick Ave	W Clearwater Ave		
134	1,522	12"	PVC	Hood Pl & Parking Lots	N Colorado St	W Grandridge Blvd	\$264,000	L
135	1,625	12"	AC, PVC	Comm.	N Columbia Center Blvd	W Grandridge Blvd	\$282,000	L
136	2,435	12"	PVC	Comm. Bldg. Loop	W Grandridge Blvd	W Grandridge Blvd	\$422,000	L
137	389	12"	AC, PVC	Driveway	W Quinault Ave	Driveway	\$68,000	L
138	2,029	12"	Unknown	Comm. Driveway	N Center Pkwy	Commercial Driveway	\$352,000	H
				Comm. Parking Lot	Private Driveway	W Quinault Ave		
139	1,380	12"	Unknown	Comm. Parking Lot	N Center Pkwy	W Grandridge Blvd	\$239,000	M
140	2,974	16"	AC, DI, PVC	W Gage Blvd	N Pittsburgh St	Mall Parking Lot	\$544,000	M
141	1,038	12"	AC	N Center Pkwy	W Grandridge Blvd	W Quinault Ave	\$180,000	M
142	1,134	12"	PVC	W Quinault Ave	W Grandridge Blvd	N Center Pkwy	\$197,000	L
143	2,187	12"	AC	Loop	N Louisiana St	N Louisiana St	\$379,000	M
144	2,456	12"	AC	N Center Pkwy	W Grandridge Blvd	W Deschutes Ave	\$426,000	L
145	1,089	12"	PVC	N Louisiana St	W Quinault Ave	W Gage Blvd	\$189,000	M
146	619	12"	PVC	Easement	W Gage Blvd	Commercial Driveway	\$108,000	L
147	2,372	12"	AC, PVC	W Victoria Ave	N Steptoe St	N Pittsburgh St	\$411,000	M
				Easement	N Pittsburgh St	N Louisiana St		
148	1,226	12"	AC	Loop, Comm. Bldg.	W Gage Blvd	W Gage Blvd	\$213,000	M
149	1,671	12", 16"	PVC	Steptoe St	Bridge	W Clearwater Ave	\$293,000	H
				S Clodfelter St	W Clearwater Ave	W 4th Ave		
				W 4th Ave	S Clodfelter St	S Oklahoma St		
150	1,666	12"	PVC	Steptoe St	Gage Blvd	W Tucannon Ave	\$289,000	L
				W Tucannon Ave	Steptoe St	N Pittsburgh St		
				N Pittsburgh St	W Tucannon Ave	W Gage Blvd		
151	1,063	12", 16"	PVC	N Steptoe St	Gage Blvd	W Arrowhead Ave	\$191,000	H
152	324	12"	PVC	Lincoln Dr	Katherine St	N Steptoe St	\$57,000	L
				W Arrowhead Ave	N Texas St	N Steptoe St		
153	434	12"	PVC	S Utah St	W Clearwater Ave	Driveway	\$76,000	L
				W Clearwater Ave	S Utah St	Driveway		
154	734	24"	Unknown	Kansas Res. Driveway	W 10th Ave	24" Water Main		H

OTHER IMPROVEMENTS

The additional water main, PRV, and facility improvements were prioritized based on existing deficiencies, safety concerns, maintenance requirements, and capacity requirements. The miscellaneous improvements were prioritized based on regulatory requirements and assessment of the water system needs. The priority order of these improvements is reflected in the schedule of improvements that is presented in **Table 8-8**.

SCHEDULE OF IMPROVEMENTS

The results of prioritizing the improvements were used to establish an implementation schedule that can be used by the City for preparing its 10-year CIP and biennial water utility budget. The implementation schedule for the proposed improvements is shown in **Table 8-8**. An allowance of \$750,000 per year (\$1,500,000 per biennium) has been allocated for the water main replacement program (CIP WM1), and an allowance of \$350,000 per year (\$700,000 per biennium) has been allocated for the non-standard water main material replacement program (CIP WM2). The City will identify and schedule the replacement of water mains to be funded by the water main replacement program during the biennial budget process. This provides the City with the flexibility to coordinate these projects with road or other projects within the same area. Because of the amount of water main in the City's water system, not all deficient mains can be replaced within the 20-year planning horizon of this WCP. As shown in **Table 8-8**, many water main replacement projects have been scheduled for years beyond 2035 and will be completed as time and budget allows.

FUTURE PROJECT COST ADJUSTMENTS

All cost estimates shown in the tables are presented in 2016 second quarter dollars. These cost estimates will need to be adjusted to account for the effects of inflation and changing construction market conditions to determine future costs at the actual time of project implementation. Future costs can be estimated using the Engineering News Record (ENR) Construction Cost Index for the Seattle area or by applying an estimated rate of inflation that reflects the current and anticipated future market conditions.

Table 8-8
Proposed Implementation Schedule

CIP No.	Description	Estimated Cost (2016 \$)	20-Year Schedule of Improvements											Improvement Cost Breakdown						
			2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028-2035	2036+	Repair and Replacement	Improvement	Expansion	
Water Main Improvements																				
WM1	Fire Flow Deficiency Water Main Replacement Program	\$35,128,000	\$750K	\$750K	\$750K	\$750K	\$750K	\$750K	\$750K	\$750K	\$750K	\$750K	\$750K	\$750K	\$750K	\$6,000K	\$20,128K	85%		15%
WM2	Asbestos Cement, Galvanized, or Steel Water Main Replacement Program	\$7,000,000	\$350K	\$350K	\$350K	\$350K	\$350K	\$350K	\$350K	\$350K	\$350K	\$350K	\$350K	\$350K	\$350K	\$2,800K	\$0K	97%		3%
WM3	KID Elliot Lake Water System Acquisition	\$964,000																		
WM4	Ridgeline Drive Highway 395 Crossing Water Main	\$416,000																		100%
WM5	W. Hildebrand Avenue and Ridgeline Drive Dead End Water Main Looping	\$598,000																		100%
WM6	W. 10th Avenue Parallel Main Connections	\$30,000							\$30K											100%
WM7	Columbia Center Mall Loop	\$30,000							\$10K											100%
WM8	Red Lion Hotel Loop	\$10,000																		100%
WM9	Enlat Avenue to Canal Drive Water Main	Previously Funded																		
WM10	20th Avenue Zone 3 Connection	\$100,000																		
WM11	Tri-City Heights Water Main Replacement	\$6,100,000											\$100K			\$3,050K	\$3,050K			100%
Pressure Zone Improvements																				
PZ1	Conversion of Zone 1 to Zone 2 near W. Park Hills Drive	\$20,000																		100%
PZ2	Conversion of Zone 1 to Zone 2 near Vista Elementary	\$66,000																		100%
PZ3	Conversion of Zone 4 to Zone 5 in S. Olympia Street	\$93,000																		100%
Vista Field Emergency Supply Improvements																				
VF1	Vista Field - Phase 1 Improvements	\$298,000																		33%
VF2	Vista Field - Phase 2 Improvements	\$1,117,000																		33%
VF3	Vista Field - Phase 3 Improvements	\$2,557,000							\$1,117K											33%
Pressure Reducing Station Improvements																				
PRV1	S. Kellogg Street and W. 4th Avenue PRV Station	\$248,000																		5%
PRV2	N. Stepike Street and Gage Boulevard PRV Station	\$401,000																		50%
PRV3	Low Zone 3 Services Residual Pressure Improvements	\$367,000																		95%
PRV4	Low Zone 3 Hydrant Residual Pressure Improvements	\$93,000																		95%
Facility Improvements																				
F1	Water Treatment Plant Expansion	\$17,640,000																		100%
F2	18th and Kellogg (LO MG) Reservoir Improvements	O&M Funded																		
F3	PFAS Contamination Improvements ¹	\$35,000,000															\$500K	\$500K		
Miscellaneous Improvements																				
M1	Water Comprehensive Plan Update	\$300,000																		
M2	Annual Customer Meter Replacement Program	\$1,000,000	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$50K	\$150K
M3	Water Use Efficiency Program	\$120,000	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$6K	\$48K
M4	Redundant Pumps and Motors	O&M Funded																		
M5	Emergency Portable Generators	O&M Funded																		
M6	Pump and Motor Condition Assessment	O&M Funded																		
Developer Funded Improvements																				
DF1	Future Development Benefit to Existing Customers	\$1,130,000	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K				
DF2	Future Development Benefit to New Customers	\$1,200,000	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K				100%
DF3	Proposed Zone 5 Reservoir and Water Main	\$3,969,000																		95%
DF4	Zone 4 Water Main and PRV Station	\$2,007,000																		95%
DF5	Zone 3 Water Main and PRV Station	\$1,142,000																		95%
DF6	Zone 3 Clodfelter Road and W. 10th Avenue Water Main	\$1,590,000																		95%
DF7	Southeast Zone 5 Water Main	\$2,251,000																		95%
DF8	Zone 6 East BPS, Reservoir, PRV, and Water Main	\$3,918,000																		95%
DF9	Zone 7 East BPS and Water Main	\$1,171,000																		95%
DF10	Zone 6 South BPS, Reservoir, and Water Main	\$2,723,000																		95%
DF11	Zone 7 South BPS and Water Main	\$2,037,000																		95%
DF12	Christensen Road Water Main	\$475,000																		95%
Total Estimated Cost of Repair and Replacement Projects																				
		\$47,423,497	\$1,032K	\$1,218K	\$1,405K	\$1,895K	\$1,032K	\$1,032K	\$1,268K	\$1,233K	\$4,431K	\$4,071K	\$1,775K	\$18,032K	\$8,409K		\$47,423K	---	---	---
Total Estimated Cost of Improvement Projects																				
		\$2,314,000	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$94K	\$0K		---	---	---
Total Estimated Cost of Expansion Projects																				
		\$22,996,503	\$124K	\$322K	\$688K	\$1,828K	\$124K	\$124K	\$136K	\$324K	\$128K	\$128K	\$124K	\$124K	\$18,629K		---	---	---	\$22,997K
Total Estimated Costs of Developer Funded Projects																				
		\$21,362,000															---	---	---	---
Improvement Projects Beyond 20-year Planning Period																				
		\$20,128,000														\$20,128K				\$30,08K
NOTE: All estimated costs shown in terms of 2016 dollars, without inflation, except CIP F3.																				
(1) Costs for CIP F3 are presented in 2024 dollars.																				

9 | FINANCIAL PROGRAM

INTRODUCTION

The purpose of the financial program is to provide reasonable assurance that the City of Kennewick (City) has and will have the financial ability to maintain and operate the utility on an ongoing basis, and has the capacity to obtain sufficient funds to construct the water system improvements as identified in **Chapter 8**.

The financial program can only provide this qualified assurance if it considers the total system costs of providing water service, including operating and capital. To meet these objectives, the financial plan includes the following elements.

- Past Financial Performance
 - Comparative Statement of Revenues, Expenses, and Changes in Fund Equity 2009 through 2024
 - Comparative Balance Sheets 2009 through 2024
 - Schedule of Long-term Debt
- Funding Sources
- Capital Financing Plan
 - Capital Improvement Plan (CIP) Financing Plan 2016 through 2027
- Projected Financial Performance
 - Revenue Requirement Summary 2016 through 2027
- Rate Structure and Conservation Objectives

PAST FINANCIAL PERFORMANCE

The City's primary function is to provide potable water and fire flow services to City customers at the lowest reasonable price, ensuring reliability of source, storage, and distribution.

The historical financial statements presented in **Tables 9-1 and 9-2** clearly show the financial viability and strength of the City to continue providing a high level of service. The water system is part of a combined water and sewer fund, so the financial statements reflect the combined utility results.

COMPARATIVE FINANCIAL STATEMENTS

Table 9-1
Comparative Statement of Revenues, Expenses, and Changes in Fund Equity (2009 through 2024)

Income and Expense - O&M	Biennium							
	2009/2010	2011/2012	2013/2014	2015/2016	2017/2018	2019/2020	2021/2022	2023/2024 ¹
Operating Revenues								
Rate Revenue	\$15,807,760	\$16,431,921	\$17,827,332	\$18,976,122	\$20,253,143	\$23,739,104	\$27,922,287	\$ 31,347,448
Income from Other Sources	\$699,048	\$822,677	\$1,101,529	\$1,209,100	\$1,362,392	\$1,327,308	\$1,435,394	\$ 3,019,410
Total Income	\$16,506,808	\$17,254,598	\$18,928,861	\$20,185,222	\$21,615,535	\$25,066,412	\$29,357,681	\$34,366,858
Operating Expenses								
General & Administrative Expenses (55% Water)	\$3,539,113	\$3,323,581	\$3,446,466	\$3,713,225	\$3,538,430	\$3,949,236	\$4,095,788	\$ 4,553,856
Well Maintenance	\$109,177	\$99,141	\$159,139	\$87,701	\$154,099	\$159,381	\$190,472	\$ 363,499
Filtration Plant Maintenance	\$185,174	\$447,494	\$502,795	\$694,282	\$581,142	\$1,056,704	\$860,012	\$ 565,686
Water Distribution Maintenance	\$2,279,600	\$1,504,748	\$2,574,559	\$3,654,623	\$2,929,947	\$3,173,002	\$3,033,070	\$ 3,729,649
BPS and Reservoir Maintenance	\$200,599	\$235,598	\$297,566	\$258,813	\$460,002	\$469,468	\$447,356	\$ 470,199
General Plant Maintenance	\$28,337	\$12,712	\$58,295	\$30,000	\$47,046	\$22,393	\$13,430	\$ 32,243
Well Operations	\$351,875	\$450,683	\$518,785	\$508,701	\$656,761	\$678,356	\$725,191	\$ 1,013,217
Filtration Plant Operations	\$1,362,272	\$1,509,107	\$1,353,247	\$1,761,484	\$1,592,065	\$1,309,042	\$1,792,207	\$ 2,005,726
Water Distribution Operations ²	\$693	\$819	\$0	\$0	\$0	\$0	\$0	\$0
BPS and Reservoir Operations ³	\$411,609	\$462,738	\$0	\$0	\$0	\$0	\$0	\$0
Other Services and Charges	\$199,722	\$182,442	\$182,313	\$499,502	\$998,106	\$1,083,921	\$1,107,431	\$ 991,064
Intergovernmental Services/Taxes	\$1,844,518	\$2,108,733	\$2,498,919	\$2,603,510	\$2,837,737	\$4,100,894	\$5,615,910	\$ 6,470,693
Total O&M Expenses	\$10,512,689	\$10,337,796	\$11,592,084	\$13,811,841	\$13,795,335	\$16,002,397	\$17,880,867	\$20,195,832
Net O&M Income								
Net O&M Income	\$5,994,119	\$6,916,802	\$7,336,777	\$6,373,381	\$7,820,200	\$9,064,014	\$11,476,814	\$14,171,026

(1) Adjusted 2023/2024 budget.

(2) In 2013, these expenses were moved to water distribution maintenance.

(3) In 2013, these expenses were split between water distribution maintenance and filtration maintenance.

Table 9-2
Comparative Balance Sheet (2009 through 2024)

Income and Expense - Capital Improvements	Biennium							
	2009/2010	2011/2012	2013/2014	2015/2016	2017/2018	2019/2020	2021/2022	2023/2024 ¹
Capital Revenues								
Beginning Cash Reserve Balance	\$7,357,099	\$5,365,902	\$3,672,778	\$2,462,398	\$1,803,089	\$840,621	(\$919,195)	\$7,860,520
Net O&M Income	\$5,994,119	\$6,916,802	\$7,336,777	\$6,476,455	\$7,820,200	\$9,064,014	\$11,476,814	\$14,171,026
Outside Funding Sources	\$2,531,885	\$1,180,755	\$5,810,195	\$1,137,169	\$1,047,446	\$361,354	\$7,732,193	\$ 3,142,811
Total Capital Income	\$8,526,004	\$8,097,557	\$13,146,972	\$7,613,624	\$8,867,646	\$9,425,368	\$19,209,007	\$17,313,837
Capital Expenses								
Capital Outlays	\$6,853,361	\$5,681,375	\$11,079,708	\$4,378,369	\$6,263,161	\$8,125,060	\$7,374,224	\$ 15,964,399
Debt Service	\$3,551,673	\$3,544,504	\$3,450,314	\$3,894,565	\$3,566,954	\$3,060,126	\$3,055,069	\$5,298,400
Total Capital Expenses	\$10,405,034	\$9,225,879	\$14,530,022	\$8,272,934	\$9,830,115	\$11,185,186	\$10,429,293	\$21,262,799
Change in Capital								
Change in Working Capital	(\$1,879,030)	(\$1,128,322)	(\$1,383,050)	(\$659,310)	(\$962,469)	(\$1,759,817)	\$8,779,714	(\$3,948,962)
Interfund Loan Activity	\$162,866	(\$724,803)	\$44,343	\$0	\$0	\$0	\$0	\$0
Intergovernmental Payments	(\$275,033)	\$160,000	\$128,326	\$0	\$0	\$0	\$0	\$0
Ending Cash Reserves Balance	\$5,365,902	\$3,672,778	\$2,462,398	\$1,803,089	\$840,621	(\$919,195)	\$7,860,520	\$3,911,558

(1) Adjusted 2023/2024 budget.

EXISTING LONG-TERM DEBT

The water utility currently has six outstanding debt obligations that are either Revenue Bonds, Public Works Trust Fund (PWTF) or Drinking Water State Revolving Fund (DWSRF) loans. The water utility is responsible for 100 percent of the revenue bond, PWTF and DWSRF loans discussed in this chapter. **Table 9-3** shows the schedule of annual debt service payments through the full term of each debt obligation to be paid through year 2027. All existing long-term debt is scheduled to be repaid by 2039.

Table 9-3
Schedule of Long-Term Debt

Due	Principal	Interest	Payment
2009	\$1,562,236.05	\$178,721.09	\$1,740,957.14
2010	\$1,619,831.00	\$190,886.21	\$1,810,717.21
2011	\$1,619,831.07	\$176,746.26	\$1,796,577.32
2012	\$1,586,136.24	\$161,791.44	\$1,747,927.67
2013	\$1,586,136.24	\$147,173.59	\$1,733,309.83
2014	\$1,584,448.99	\$132,555.72	\$1,717,004.71
2015	\$1,820,560.11	\$130,021.63	\$1,950,581.74
2016	\$1,820,560.10	\$123,423.16	\$1,943,983.26
2017	\$1,908,970.79	\$110,545.70	\$2,019,516.49
2018	\$1,451,890.62	\$95,546.78	\$1,547,437.40
2019	\$1,451,890.62	\$83,458.15	\$1,535,348.77
2020	\$1,453,181.80	\$71,595.21	\$1,524,777.01
2021	\$1,457,768.87	\$60,170.07	\$1,517,938.94
2022	\$1,447,678.84	\$89,451.37	\$1,537,130.21
2023	\$2,210,190.08	\$540,798.29	\$2,750,988.37
2024	\$2,005,356.02	\$542,055.48	\$2,547,411.50
2025	\$1,812,724.45	\$511,262.32	\$2,323,986.77
2026	\$1,143,899.44	\$478,390.62	\$1,622,290.06
2027	\$1,168,899.44	\$449,738.78	\$1,618,638.22

FUNDING SOURCES

The City may fund the water capital improvement program from a variety of sources. In general, these sources can be summarized as: 1) government grant and loan programs; 2) publicly issued debt (tax exempt or taxable); 3) cash resources; and 4) capital facilities charges. Each source is described below.

GOVERNMENT GRANT AND LOAN PROGRAMS

Historically, federal and state grant programs were available to local utilities for capital funding assistance. However, these assistance programs have been mostly eliminated, substantially reduced in scope and amount, or replaced by loan programs. The remaining miscellaneous grant programs are generally lightly funded and heavily subscribed. Nonetheless, the benefit of even the very low interest loans makes the effort of applying worthwhile. State programs identified as potential funding sources for the utility improvements set forth in this Water System Plan (WSP) are discussed as follows.

Public Works Trust Fund – The Public Works Trust Fund (PWTF) is a commonly used, low-cost revolving loan fund established by the 1985 State Legislature to provide financial assistance to local governments for public works projects. Eligible projects now include repair, replacement, rehabilitation, reconstruction, and improvement of eligible public works systems to meet current standards for existing users. With recent revisions to the program, growth-related projects consistent with 20-year projected needs are now eligible.

PWTF loans up to \$10 million per biennium are available at interest rates of 0.86 percent for project terms of less than 5 years and 1.71 percent for projects 5 to 20 years in length, with the lower interest rates given to applicants in distressed or severely distressed communities. The useful life of the project determines the loan term, up to a maximum of 20 years. The applicant must be a local government, such as a city, county, or special purpose utility district, and have an approved long-term plan for financing its public works needs. Local governments must compete for PWTF dollars since more funds are requested each year than are available. The Public Works Board evaluates each application and transmits a prioritized list of projects to the legislature. The legislature then indicates its approval by passing an appropriation from the Public Works Assistance Account to cover the cost of the approved loans. Once the Governor has signed the appropriations bill into law, the local governments receiving the loans are offered a formal loan agreement with the appropriate interest rate and term, as determined by the Public Works Board (PWB). Normally these loans are given in full, but the proceeds are drawn down as expenditures are made and then reported to the state.

For nearly 5 years, the legislature reallocated PWTF funds for other important funding needs in the state. The legislature appropriated \$400 million to the PWB for the 2023 to 2025 biennium. In fiscal year 2024, \$221.8 million were awarded to support 61 critical infrastructure projects. The ability of the state to fund the program consistently is yet to be determined.

Community Economic Revitalization Board – Managed by the Department of Community Trade and Economic Development, this program provides grants and loans to fund public facilities that result in significant job creation or significant private investment in the state. Eligible projects include water, sewer, roads, and bridges. Maximum award per project is \$5 million with interest rates on loans of 1 to 3 percent based on debt service coverage ratio, distressed county and length of loan term.

Community Development Block Grant Program – A federal government program administered by the State Department of Community Trade and Economic Development, the Community Development Block Grant (CDBG) program provides grants and loans for infrastructure improvements, including water projects for business development that create or retain jobs for low- and moderate-income residents. The City can apply for CDBG dollars if the area benefitting from the improvements shows at least 51 percent of its population in the low and moderate income (LMI) is 80 percent or less of the median household income by family size as calculated by HUD.

Department of Ecology – The Washington State Department of Ecology’s (Ecology) Water Quality Financial Assistance Program sponsors four grant and loan programs: 1) the Centennial Clean Water Fund; 2) the Federal 319 program; 3) the State Revolving Fund (SRF) Loan program (managed by the Public Works Trust Fund Board); and 4) the Aquatic Weeds Grant programs. While most of these funding sources go to wastewater programs, projects such as the development and implementation of groundwater and wellhead protection programs also are included.

Department of Health – The U.S. Congress annually authorizes a limited amount of money for the Drinking Water State Revolving Fund (DWSRF) loan program that is used with prior loan repayment dollars from the State of Washington, specifically for programs to increase public health and compliance with drinking water regulations. Funding is generally limited to \$15 million per jurisdiction of qualified project costs and comes as a low-interest loan of 2.25 percent for up to 20 years, decreasing to 1.75 percent, up to 50-percent principal forgiveness, and up to 30 years. The Washington State Department of Health Office of Drinking Water administers the DWSRF loan program. Priority is given to projects that address severe public health threats and compliance issues. Projects where the primary focus is for operation and maintenance, future growth above the 20-year growth provided by OFM, or fire flows will not be eligible for funding.

If consolidation of small systems in the vicinity requires additional funding, DWSRF can offer up to 50% loan forgiveness of eligible costs of constructed improvements to intertie the systems and provide other necessary updates.

Washington State Emergency Management – Hazard Mitigation Assistance (HMA) Grants are available through a federal government program administered by the State Emergency Management Division. HMA Grants look for opportunities to proactively harden critical infrastructure from the threat of natural disasters. The Federal Emergency Management Agency provides grants for infrastructure improvements, including seismic retrofits, with a federal share of 75 percent, a state share of 12.5 percent, and a local share of 12.5 percent.

American Rescue Plan – Stimulus and recovery grants from the federal government may be attractive options for infrastructure projects that can be completed by December 31, 2024. The full extent of how the State of Washington will administer the American Rescue Plan (ARP) programs is still unknown at this time. Some of the funds were sent to each county in the state, who in turn have grant programs available that the City has been pursuing. Some of the ARP funds likely will end up being administered through the Washington State Public Works Board in programs where water associations are ineligible, like the Public Works Trust Fund; however, other programs like the DWSRF program likely will be subsidized with additional funds from this source as well.

Infrastructure Investment and Jobs Act – This act moved forward providing an unparalleled level of funding for our nation’s infrastructure, passing the Infrastructure Investment and Jobs Act (IIAJ) and sending the bill to President Biden for his signature. This legislation includes substantial investments in water and other areas of interest to water and sewer utilities. A total of \$11.7 billion

of the Act's funds will take the form of direct mandatory appropriations, as opposed to authorizations, for both the Clean Water SRF and the Drinking Water SRF, totaling \$23.5 billion in new federal investment. Of that amount, it is understood that 49 percent is to be provided to communities in the form of grants of 100-percent forgiveness loans. These SRF increases will be on top of annual baseline spending (currently \$1.6 billion) that comes through the annual appropriations process.

Grant programs are the most attractive but may be difficult to obtain. Of the loan programs, the DWSRF program is the most attractive loan program for the City. However, given the level of competition for these funds, the DWSRF program should not be relied on as a source of funding for all qualified projects in a conservative rate-making forecast beyond the 5 to 6 years when the ARP and IIJA funds are active. It is recommended that the City pursue DWSRF loans as needed given the recent history of funding reliability but have a back-up plan of obtaining funding from publicly or privately issued debt for projects outside of the first 10-year window of investments.

PUBLICLY ISSUED DEBT

Revenue Bonds – Revenue bonds are commonly used to fund utility capital improvements. The debt is secured by the revenues of the issuing utility, and the debt obligation does not extend to the City's other revenue sources. With this limited commitment, revenue bonds typically require security conditions related to the maintenance of dedicated reserves (i.e., a bond reserve) and financial performance (e.g., added bond debt service coverage). The City agrees to satisfy these requirements by ordinance as a condition of the bond sale.

Revenue bonds can be issued in Washington without a public vote. There is no bonding limit, except perhaps the practical limit of the utility's ability to generate sufficient revenue to repay the debt and provide coverage. In some cases, poor credit might make issuing bonds problematic. In the case of the City, strong historical financial performance bodes well for this form of financing. For the most part, tax-exempt bonds may be issued by a governmental agency for its capital projects, with the exception of funding needs that serve private sector or non-governmental interests, such as mutual water companies and homeowners associations (which are classified as 501(c) corporations).

Generally speaking, if more than 10 percent of a capital project provides direct benefit and service to the private sector (e.g., a business or mutual water company receiving wholesale water), the associated revenue bonds will likely be taxable. It is important that each agency perform due diligence in this regard when there is a question of private versus public benefit.

CASH RESOURCES

The City has combined water and sewer reserves that include a Working Capital Reserve, an Operating Capital Reserve, and a Capital Contingency Reserve. The rate revenue needs analysis for water must consider reserves available to the water utility, based upon a financial goal of maintaining a minimum balance of 1 percent of water system assets. As of the end of 2014, water system assets were \$121,000,000 resulting in a minimum capital reserve goal of \$1,210,000. Allocation of the reserve balances, as of year-end 2013, was made to water and sewer separately based on rate revenue for the Working Capital and Operating Capital reserves, and CIP spending for the Capital Contingency Reserves. **Table 9-4** shows a summary of the projected balances through 2027.

Table 9-4
Projected Capital Reserve Balances

Year	Beginning Balance	Net Rate Revenue less Rate Funded Reinvestments	Ending Balance
2015/2016	\$2,462,398	(659,309)	\$1,803,089
2017/2018	\$1,803,089	(962,468)	\$840,621
2019/2020	\$840,621	(1,759,816)	(\$919,195)
2021/2022	(\$919,195)	8,779,715	\$7,860,520
2023/2024 ¹	\$7,860,520	(3,948,962)	\$3,911,558
2025	\$3,911,558	3,755,587	\$7,667,145
2026	\$7,667,145	(4,876,900)	\$2,790,245
2027	\$2,790,245	3,058,468	\$5,848,713

(1) Adjusted 2023/2024 budget.

CAPITAL FACILITIES CHARGES

Capital Facilities Charges (CFCs) are legal sources of funding provided through development and growth in customers, typically used by utilities to support capital needs. CFCs are a form of connection charges as authorized in the Revised Code of Washington (RCW) 35.92.025. CFCs are imposed on new customers as a condition of service, in addition to any other costs incurred to connect the customer, such as meter installation charges. Typically, the basis for the CFC is the total original capital cost the utility will or has incurred to provide the water system. The underlying premise of the CFC is that growth (i.e., future customers) will pay upfront for growth-related costs that would not have been necessary absent the increase in customer base.

The purpose of the CFC is two-fold: 1) to provide funding sources for capital financing; and 2) to recover an equitable level of investment in the system from new customers. In the absence of such a charge, growth-related costs would be borne, in large part, by existing customers. In addition, the current customers' net investment in the utility would be diluted by the addition of new customers absent a CFC. This dilution, if allowed, would in effect be a subsidy to new connections.

A brief description of the components that can be included in the CFC is provided below.

- Existing Cost Basis – Legal interpretations of state statutes have provided guidelines for CFCs. CFCs should reflect the actual original cost of the utility system and can include interest on that cost at the rate of interest applicable at the time of construction for up to a 10-year period, not to exceed 100 percent of the construction costs. This cost is net of donated facilities and non-utility cash payments, whether from grants or developers, or through Local Improvement District assessments. Although not required by state law, outstanding debt principal (net of existing cash balances) is then subtracted from this cost basis to avoid double charging, in recognition that debt service is repaid through rates.
- Future Cost Basis – Legal interpretations also suggest that future facilities needed to serve growth, as well as regulatory system improvements, can be included in the connection charge. The future cost basis can include utility capital projects planned for construction and identified in an approved comprehensive system planning document. Projects directly funded by developers, grants, or special property assessments are not included in the calculation. Replacement projects are most often excluded from the calculation unless

needed to increase the size of the system. The original cost of replacement project is already included in the existing cost basis. Further, replacement costs are typically recovered through user rates.

- **Customer Base/System Capacity** – The sum of the existing cost basis and future cost basis is then divided by the total customer base to determine the maximum allowable connection charge. The customer base represents the equivalent residential units (ERUs) that can be supported by the planned system capacity.

The City's current CFC is \$2,314 for a 1-inch meter within the City limits based upon a combination of service charge, frontage charge (maximum 100 front feet), and area charge (maximum 20,000 square feet). **Table 9-5** summarizes the CFC analysis and results. Kennewick Municipal Code 14.13.010 determines how customer base is calculated for CFC purposes.

Table 9-5
Capital Facility Charges

Meter Size	Service Charge	Frontage Charge	Area Charge
<i>Inside City Limits</i>			
3/4"	\$732.17	\$11.00	\$0.018
1"	\$854.20	\$11.00	\$0.018
1-1/2"	\$1,952.46	\$11.00	\$0.018
2"	\$2,318.55	\$11.00	\$0.018
3"	\$6,589.56	\$11.00	\$0.018
4"	\$8,664.05	\$11.00	\$0.018
6"	\$10,738.54	\$11.00	\$0.018
<i>Outside City Limits</i>			
3/4"	\$976.23	\$11.00	\$0.018
1"	\$1,098.26	\$11.00	\$0.018
1-1/2"	\$2,196.52	\$11.00	\$0.018
2"	\$2,562.61	\$11.00	\$0.018
3"	\$6,833.62	\$11.00	\$0.018
4"	\$8,908.11	\$11.00	\$0.018
6"	\$10,982.60	\$11.00	\$0.018

CAPITAL FINANCING PLAN

The water utility will look to receive financing for a total of \$30,000,000 from one of the funding sources mentioned above in 2025 and 2026 to fund the 5-year projected capital spending total of \$54 million. Existing capital reserves (funded in part by system replacement contributions from rates), annual interest earnings, and CFC collections during the 5-year period are anticipated to fund the remaining projected costs. **Table 9-6** shows the annual funding sources for the 5-year forecast period.

Table 9-6
Capital Improvement Program Financing Plan (2025 through 2028)

Capital Improvement Plan	2025	2026	2027	2028
Repair and Replacement Projects	\$6,456,634	\$2,428,111	\$20,711,405	\$23,165,464
Upgrade/Expansion Projects	\$315,975	\$322,693	\$335,601	\$349,025
Total Capital Projects¹	\$6,772,609	\$2,750,805	\$21,047,006	\$23,514,489
Capital Finance Plan	2025	2026	2027	2028
Funding Sources				
Rate Funded System Reinvestment	\$6,772,609	\$2,750,805	\$10,825,000	\$3,736,494
New Debt	\$15,000,000	\$15,000,000	\$0	\$0
Total Funding Sources	\$21,772,609	\$17,750,805	\$10,825,000	\$3,736,494

(1) Includes 4 percent annual construction inflation added to base values in Table 8-8.

PROJECTED FINANCIAL PERFORMANCE

BASIS FOR REVENUE REQUIREMENTS

The revenue requirement analysis determines the amount of rate revenue needed in a given year to meet that year's expected financial obligations.

The cash flow test identifies cash requirements for the utility in the year addressed. These requirements can include cash operating and maintenance expenses, debt service, directly funded capital outlays, capital transfers, and any projected additions to reserves. The total cash needs were then compared to projected utility revenues. Any projected shortfalls were identified and the level of rate increase necessary to make up the shortfall was estimated.

The City's internal coverage policy is currently 1.50 times all utility debt, meaning that revenues must be sufficient to meet operating expenses plus a factor, set at a minimum of 1.50 times annual debt service on all utility debt (revenue bonds and PWTF loans). The coverage factor adds some protection for bondholders against the risk of poor financial performance in any given fiscal year. The excess cash flow derived from the added coverage can be used for capital costs.

A number of forecast assumptions are used in the analysis.

- Non-rate revenue is calculated to increase with growth in future years, which is projected to be about 1 percent per year.

- Operation and maintenance (O&M) expenses are escalated at 5 percent for general cost inflation plus additional future staff and expenses. An additional 2 FTE are anticipated in 2017 with an additional 1.5 FTE needed per year to meet both additional population increases and catching up on deferred maintenance.
- Capital expenses are escalated at 4 percent per year.
- In addition to O&M costs, the revenue requirements include capital costs for debt service, directly rate-funded capital projects, and rate-funded system reinvestment transfers to CIP funds.
- The City's fund interest earnings rate is assumed to be 0.5 percent.
- The forecast assumes a PWTF Fund loan interest rate of 0.5 percent with a 20-year term.

Table 9-7 summarizes the projected financial performance and rate requirements for 2016 through 2027.

Table 9-7
Revenue Requirements Summary (2025 through 2027)

Revenue Requirements Summary	2025	2026	2027	2028
Revenues				
Rate Revenues	\$17,478,491	\$18,570,412	\$19,731,590	\$20,966,477
Non-rate Revenues	\$1,585,190	\$1,664,450	\$1,747,672	\$1,817,579
Total Revenues	\$19,063,681	\$20,234,862	\$21,479,262	\$22,784,056
Expenses				
Expenses	\$10,602,812	\$11,132,952	\$11,689,600	\$12,157,184
Existing Debt Service	\$2,323,987	\$1,622,290	\$1,618,638	\$1,608,986
New Debt Service	\$0	\$337,500	\$2,222,924	\$2,222,924
Total Expenses	\$12,926,798	\$13,092,742	\$15,531,162	\$15,989,094
Net Revenue	\$6,136,882	\$7,142,119	\$5,948,099	\$6,794,962

RATE STRUCTURE AND CONSERVATION OBJECTIVES

EXISTING RETAIL RATES

The City's existing (2024) water rates for single-family residential customers are comprised of a fixed monthly and total water consumption charge, both of which vary based on the customer's location (inside or outside of the City limits). Residential customers within the City have a base rate of \$30.71 for the bi-monthly billing period. The fixed bi-monthly charge for single-family residential customers inside the City limits is \$30.71, and \$67.59 outside of the City limits. Residential and commercial customers within the City are both billed for all water usage at \$1.747 per 100 cubic feet and all outside City users are billed at \$3.848 per 100 cubic feet. The flat-rate structure is intended to provide a pricing incentive for conservation because the more you use the more you pay. Flat-rate structures are also fair because they don't penalize high commercial users for their required water supplies.

AFFORDABILITY

An affordability test was conducted based upon a standard threshold of 1.5 percent of the annual median family income. The median household income values for 2016 to 2022 are from the Washington State Office of Financial Management (OFM). The OFM states that the median household income for the Kennewick-Pasco-Richland metro area for 2022 was projected to be \$85,144. A 5-percent annual increase in the median household income was projected for 2023 through 2027. Based upon these affordability criteria, the City is well within the threshold for the forecast years of 2016 through 2027. The rates for years 2025 through 2027 are projected rates based upon the need to fund the capital improvements as shown in **Table 8-8** of **Chapter 8**. **Table 9-8** shows the average annual monthly bill based on past and projected rate increases and the maximum annual average monthly bill. With the rate increases projected in **Table 9-8**, the average monthly bill for a single-family residence will be no more than 41.3 percent of the maximum affordable monthly bill for drinking water.

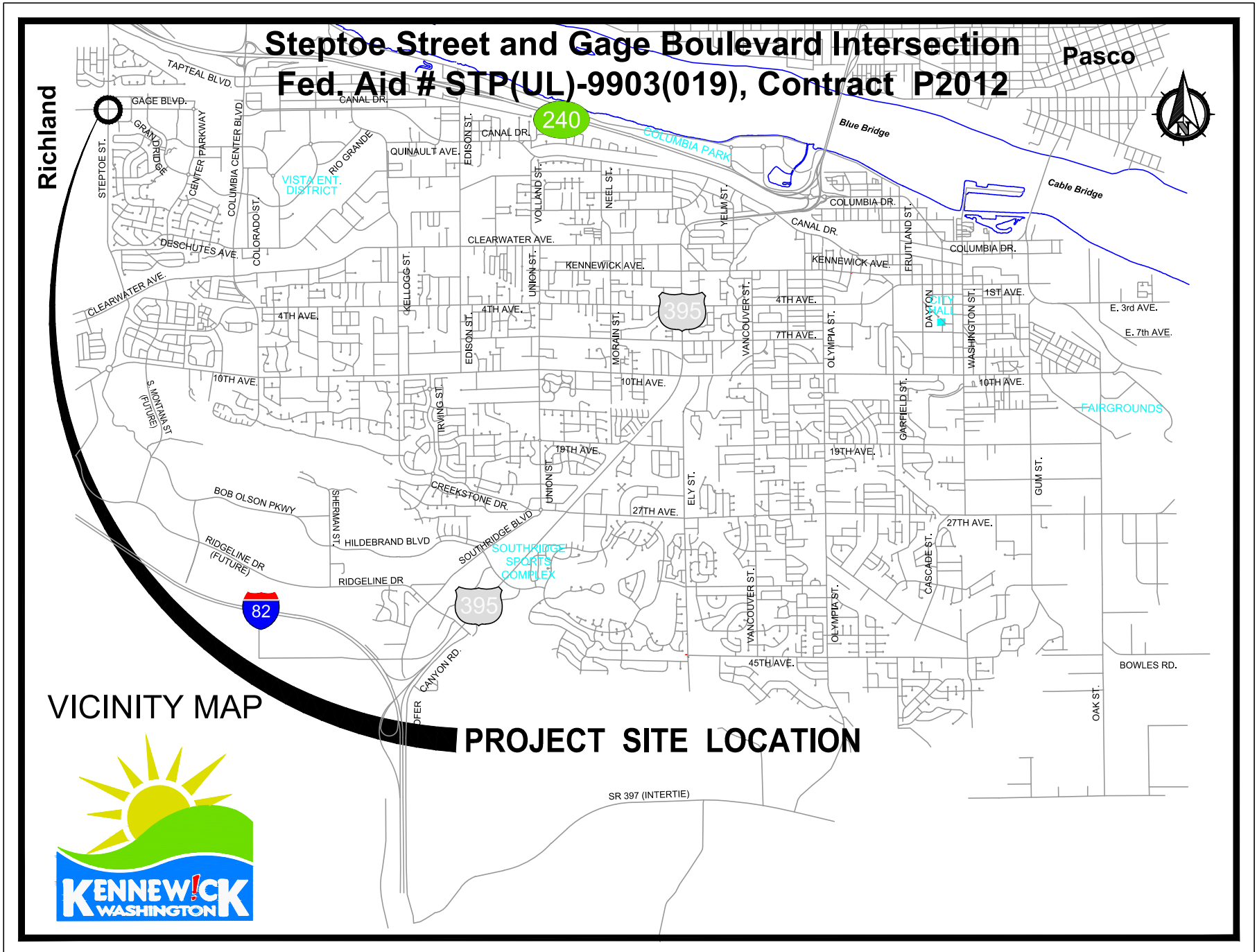
Table 9-8
Affordability of Residential Rates

Year	Maximum Affordable Monthly Bill	Average Monthly Bill (Single-Family Residential)	Effective Rate Increase
2027	\$135.83	\$53.97	5.15%
2026	\$129.37	\$51.32	5.15%
2025	\$123.21	\$48.85	5.15%
2024	\$117.34	\$46.43	5.15%
2023	\$111.75	\$44.13	5.15%
2022	\$106.43	\$41.98	5.15%
2021	\$96.67	\$39.90	5.15%
2020	\$94.85	\$37.98	4.80%
2019	\$91.06	\$36.20	5.90%
2018	\$84.89	\$34.23	5.30%
2017	\$79.38	\$32.46	4.60%
2016	\$77.85	\$31.07	-

CONCLUSION

The City continues to maintain the water utility in a healthy financial position and is taking steps with this WCP to ensure future stability of the water utility's financial status. Additionally, the City plans to conduct an in-depth rate study in 2025 that will more carefully evaluate both rates and CFCs required for financial stability. The capital improvement program in **Chapter 8** of this WCP is the basis for the rate study, but the rate study is not complete at the time of this printing. It is beyond the scope of this WCP amendment to fully integrate the rate study recommendations.

Council Agenda Coversheet	Item Number: 4.j. Date: 11/5/2024 Item Type: Contract/Agreement/Lease Subject: Acceptance of Work: Steptoe St. and Gage Blvd. Intersection Improvements Department: Public Works Project # P2012	Category: Consent Agenda
		
<u>Recommendation</u> Staff recommends Council accept the work of Apollo, Inc. for contract P2012 Steptoe St. and Gage Blvd. Intersection Improvements Project, in the amount of \$3,137,157.89. <u>Motion for Consideration</u> Motion to accept the work of Apollo, Inc. for contract P2012 Steptoe St. and Gage Blvd. Intersection Improvements Project, in the amount of \$3,137,157.89. <u>Summary</u> This project constructed a new traffic signal system to accommodate new right-turn lanes and left turn lanes for added turning capacity on all four legs of the intersection. The proposed work included the installation of curb, gutter, sidewalk, traffic curbing, concrete traffic islands, driveways, storm drainage, HMA overlay and a new signal system. This project had three (3) change orders which included: 1. Installing new Type 1L catch basins. 2. Delete Inlay Plastic pavement marking bid items from the project and replaced it with hot applied Liquid Thermoplastic pavement marking. 3. Modifying existing hand railing at Rite Aid site. Quantity changes included increase in Flagger and Spotter hours, Sequential arrow sign, Removing Asphalt, Asphalt patching, Asphalt patching behind sidewalk, reinforced concrete patching, Adjust Valve box, CSBC, Sidewalk/Driveway removal, Concrete Pedestrian curb, Concrete Sidewalk, Detectable Warning Surface, Parking Lot Wheel stops, Irrigation sleeve, Dig and Verify, Remove and dispose existing Fire Hydrant, Adjust existing water DCVA box, 12 inch water line DI, Trench safety system, Imported pipe bedding, Adjust SD Catch Basin grate and Frame, Remove and dispose existing Catch basin, Parking lot right arrow, Raised pavement marking, Tubular marker, Sign post and base. Original Contract: \$3,043,970.26 Change Orders: \$235.76 Quantity Changes: \$92,951.87 Total: \$3,137,157.89 (3.06% over the original contract) <u>Alternatives</u> None recommended. <u>Fiscal Impact</u> Federal Match: \$2,580,000 City of Richland: \$139,290 (25% match) Capital Improvement Fund: \$417,868		
<u>Attachments:</u> 1. Map		



Council Agenda Coversheet 	Item Number: 4.k. Date: 11/5/2024 Item Type: Contract/Agreement/Lease Subject: Contract: 2022 General Sewer Plan Supplemental Agreement No. 3 Department: Public Works Project # P2114	Category: Consent Agenda															
<u>Recommendation</u> Staff recommends the City Council authorize the City Manager to sign the Supplemental Agreement No. 3 with J-U-B Engineers, Inc. for the 2022 General Sewer Plan update (P2114). <u>Motion for Consideration</u> Motion to authorize the City Manager to sign the Supplemental Agreement No. 3 with J-U-B Engineers, Inc. for the 2022 General Sewer Plan update (P2114). <u>Summary</u> In accordance with Washington Administrative Code 173-240-202(7), the City of Kennewick (City) maintains a General Sewer Plan which is reviewed and approved by the Washington State Department of Ecology (WDOE). Long term planning should be reviewed and periodically updated to incorporate changes in population, land use, and regulations. It is recommended that updates occur at 5-10 year intervals. The last comprehensive General Sewer Plan for the City was completed in 2014 with adoption of the plan in early 2015. The City has experienced significant growth since then and much of the previous plan needs updating. The major goals of the 2022 General Sewer Plan update are as follows: - Perform flow monitoring in the collection system at key locations - Update the hydraulic model, add new sewer pipes since last update, add additional loads, calibrate the model based on flow monitoring data - Identify limitations in the existing collections system and necessary improvements - Create Capital Improvement Projects (CIPs) with particular emphasis on the next 5-10 years - Identify future interceptor sewer improvements necessary to service future growth areas - Create an Asset Management risk prioritization model, taking into account consequence and probability of failure The City signed an agreement with J-U-B Engineers, Inc. to complete the design of the 2022 General Sewer Plan update on September 9, 2021. Supplemental Agreement No. 1 & 2 provided additional time to complete the design of the 2022 General Sewer Plan update, which included a final review/comment period by the Department of Ecology. This Supplemental Agreement No. 3 provides additional time and scope to update specific data in the General Sewer Plan and resubmit to the Department of Ecology. <u>Alternatives</u> None recommended <u>Fiscal Impact</u> <table> <tr> <td>Water and Sewer Fund</td><td>Professional Services Agreement:</td><td>\$267,200</td></tr> <tr> <td></td><td>Supplemental Agreement No. 1:</td><td>\$ 0</td></tr> <tr> <td></td><td>Supplemental Agreement No. 2:</td><td>\$ 0</td></tr> <tr> <td></td><td>Supplemental Agreement No. 3:</td><td>\$ 8,000</td></tr> <tr> <td></td><td>Total:</td><td>\$275,200</td></tr> </table>			Water and Sewer Fund	Professional Services Agreement:	\$267,200		Supplemental Agreement No. 1:	\$ 0		Supplemental Agreement No. 2:	\$ 0		Supplemental Agreement No. 3:	\$ 8,000		Total:	\$275,200
Water and Sewer Fund	Professional Services Agreement:	\$267,200															
	Supplemental Agreement No. 1:	\$ 0															
	Supplemental Agreement No. 2:	\$ 0															
	Supplemental Agreement No. 3:	\$ 8,000															
	Total:	\$275,200															
<u>Attachments:</u> 1. Agreement																	

**SUPPLEMENTAL AGREEMENT #3
Between Owner and Consultant**

P-2114, 2022 GENERAL SEWER PLAN

THIS SUPPLEMENTAL AGREEMENT, entered into this 5th day of November, 2024 by and between the City of Kennewick, 210 West 6th Avenue, Kennewick, Washington (hereinafter called the "OWNER"), and J-U-B Engineers, Inc, 3611 S. Zintel Way, Kennewick, WA 99337 (hereinafter called the "CONSULTANT").

WITNESSETH:

WHEREAS, the Parties hereto previously entered into an agreement for professional engineering services for the 2022 General Sewer Plan update, said agreement being dated September 9, 2021; and

WHEREAS, the Parties hereto previously revised the agreement with Supplemental Agreement #1 & Supplemental Agreement #2, by extending the termination date to complete the work in Exhibit A, Scope of Services of the original Agreement; and

WHEREAS, both parties desire to supplement said Agreement by expanding the scope of work as described in the Consultant's Contract Amendment to Attachment 1 Scope of Services and extending the termination date; and

NOW, THEREFORE, in consideration of the promises, covenants, terms, conditions, and performance contained herein, or attached and incorporated and made a part hereof, the parties mutually agree that each and every provision of the original Agreement as supplemented shall remain in full force and effect, except as expressly modified in the following sections:

Section 3, TIME FOR BEGINNING AND COMPLETION, second sentence, revised to read:

CONSULTANT agrees to use best efforts to complete all work described in Attachment 1 Scope of Services by **July 31, 2025**.

Section 4, PAYMENT, first paragraph, and Maximum Total Amount Payable are revised to read:

The CONSULTANT shall be paid **Time & Materials with a total amount of \$275,200** by the Owner to complete design services described in Contract Amendment to Attachment 1 Scope of Services.

IN WITNESS WHEREOF, the parties hereto have executed this Supplemental Agreement #3 as of the day and year first above written.

CITY OF KENNEWICK, WASHINGTON

JUB ENGINEERS, INC.

Erin Erdman, City Manager

Alex Fazzari, P.E., Area Manager



Council Agenda Coversheet 	Item Number: 5.a. Date: 11/5/2024 Item Type: Ordinance Subject: Ordinance: Setting Water Utility Rates Department: Public Works Ordinance #	Category: Ordinance/Reso
<u>Recommendation</u> Staff recommends adoption of the ordinance as presented amending section 14.13 Charges (Water) of Kennewick Municipal Code (KMC). <u>Motion for Consideration</u> Motion to adopt the ordinance as presented. <u>Summary</u> The City of Kennewick completed a Council authorized water-sewer rate study in 2016 with the City's selected consultant, FCS Group. The primary purpose of the study was to determine whether the utility's current rate structure will provide funding to adequately meet the utility's financial obligations and capital improvements required to maintain the current system and meet additional needs required to serve new growth. The General Sewer Comprehensive Plan, Wastewater Treatment Plant Facility Plan, both approved and adopted by the City Council in 2015, along with the Water Comprehensive Plan in 2016, were used to assist in the development of the rate study. The current rate study is a multi-year financial plan that will provide revenue requirements to meet the following obligations: Operating Expenses, Debt Service, Capital Expenditures, and Fiscal Policy Achievement. The rate study evaluated the sufficiency of the current rates on a standalone basis and developed a rate implementation strategy. Council adopted this strategy for the 2023/2024 biennial budget with a rate increase in 2023 and 2024. Staff recommendation is for a rate implementation in 2025 of 5.15% for Water and then implement the same rates again in 2026. In 2026 the plan will be reevaluated for the 2027/2028 biennial budget. <u>Alternatives</u> None recommended. <u>Fiscal Impact</u> N/A		
<u>Attachments:</u> 1. Ordinance 2. Redline 3. Presentation		

CITY OF KENNEWICK
ORDINANCE NO. 24-_____

AN ORDINANCE RELATING TO WATER CHARGES AND AMENDING
SECTIONS 14.13.030, 14.13.040, 14.13.050 AND 14.13.100 OF THE
KENNEWICK MUNICIPAL CODE

THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, DO ORDAIN AS
FOLLOWS:

Section 1. Section 14.13.030 of the Kennewick Municipal Code, be, and the same hereby is,
amended to read as follows:

14.13.030: - Residential Water Rates - Inside the City Limits.

This schedule applies to all residences and individual apartment houses within the City limits
where service is furnished through a separate meter for each such individual apartment:

- (1) Effective January 1, 2025, the service fee for a bi-monthly billing period will be \$32.29 plus any modification authorized under Section 14.13.100. Effective January 1, 2026, the service fee for a bi-monthly billing period will be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.
- (2) Effective January 1, 2025, all water use during the bi-monthly billing period will be charged at \$1.837 per 100 cubic feet of water metered, plus any modification authorized under Section 14.13.100. Effective January 1, 2026, the charge for water use during the bi-monthly billing period will be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.

(Ord. 24-_____ Sec 1, 2024; Ord. 5989 Sec. 1, 2022; Ord. 5881 Sec. 1, 2020; Ord. 5786 Sec. 1, 2018.; Ord. 5677 Sec. 1, 2016; Ord. 3619 Sec. 5, 1995; Ord. 3121 Sec. 1(part), 1987; Ord. 3084 Sec. 1(part), 1987; Ord. 2973 Sec. 1(part), 1985; Ord. 2910 Sec. 1(part), 1985; Ord. 2888 Sec. 3(part), 1985; Ord. 2481 Sec. 2(part), 1980)

Section 2. Section 14.13.040 of the Kennewick Municipal Code, be, and the same hereby is,
amended to read as follows:

14.13.040: - Residential Water Rates - Outside the City Limits.

This schedule applies to all residences, and the individual apartments in apartment houses
outside the City limits where service is furnished through a separate meter for each such
individual apartment:

- (1) Effective January 1, 2025, the service fee for a bi-monthly billing period will be \$71.07, plus any modification authorized under Section 14.13.100. Effective January 1, 2026, the service fee for a bi-monthly billing period will be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.
- (2) Effective January 1, 2025, all water use during the bi-monthly billing period will be charged at \$4.046 per 100 cubic feet of water metered, plus any modification authorized under Section 14.13.100. Effective January 1, 2026, the charge for water use during the bi-monthly billing period will be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.

(Ord. 24-_____ Sec 2, 2024; Ord. 5989 Sec 2, 2022; Ord. 5881 Sec 2, 2020; Ord. 5786 Sec. 2, 2018 ; Ord. 5677 Sec. 2, 2016; Ord. 3619 Sec. 6, 1995; Ord. 3121 Sec. 1(part), 1987; Ord. 3084 Sec. 1(part), 1987; Ord. 2973 Sec. 1(part), 1985; Ord. 2910 Sec. 1(part), 1985; Ord. 2888 Sec. 3(part), 1985; Ord. 2481 Sec. 2(part), 1980)

Section 3. Section 14.13.050 of the Kennewick Municipal Code, be, and the same hereby is, amended to read as follows:

14.13.050: - Multi-family, Commercial and Industrial Water Rates.

- (1) Effective January 1, 2025, the following schedule, plus \$1.837 per 100 cubic feet of water, plus any modification to these rates authorized under Section 14.13.100, applies to all nonresidential water users within the City limits:

Meter Size	Rate For Two Months
¾"	\$62.44
1"	\$93.34
1½"	\$166.04
2"	\$218.12
3"	\$332.30
4"	\$488.02
6"	\$737.29

Effective January 1, 2026, rates authorized under this section shall be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.

- (2) Effective January 1, 2025, the following schedule, plus \$4.046 per 100 cubic feet of water, plus any modification to these rates authorized under Section 14.13.100, applies to all nonresidential water users outside the City limits:

Meter Size	Rate For Two Months
¾"	\$137.35
1"	\$205.37
1½"	\$365.27
2"	\$479.88
3"	\$731.04
4"	\$1,073.66
6"	\$1,622.04

Effective January 1, 2026, rates authorized under this section shall be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.

(Ord. 24-_____ Sec 3, 2024; Ord. 5989 Sec 3, 2022; Ord. 5881 Sec 3, 2020; Ord. 5786 Sec. 3, 2018 ; Ord. 5677 Sec. 3, 2016; Ord. 3619 Sec. 7, 1995; Ord. 3121 Sec. 1(part), 1987; Ord. 3084 Sec. 1(part), 1987; Ord. 2973 Sec. 1(part), 1985; Ord. 2910 Sec. 1(part), 1985; Ord. 2888 Sec. 3(part), 1985; Ord. 2481 Sec. 2(part), 1980)

Section 4. Section 14.13.100 of the Kennewick Municipal Code, be, and the same hereby is, amended to read as follows:

14.13.100: - Indexing Fees and Charges.

The fees and charges for water services set out in Sections 14.13.010, 14.13.030, 14.13.040, 14.13.050, and 14.13.090 shall be indexed annually by the Treasurer to reflect 100 percent of any change from the Consumer Price Index (U.S. Cities - Urban Wage Earners and Clerical Workers - CPI-W) for October, or other comparable index if not published. Effective beginning with rates that will be in effect on January 1, 2027, the fees and charges for water services set out in Sections 14.13.030, 14.13.040, and 14.13.050 shall also be indexed annually by the Treasurer to

ORDINANCE 24-_____ - Page 3

reflect 100 percent of any change from the Consumer Price Index (U.S. Cities - Urban Wage Earners and Clerical Workers - CPI-W) for October, or other comparable index if not published. The Treasurer shall adjust the fees and publish them each December to take effect on all goods and services delivered or contracted after the beginning of each year and all utility bills mailed after the first of each year. In no event shall the cumulative change in rates be less than zero percent nor more than four percent per year, nor may the change in any given year be less than zero percent nor more than four percent. Unit prices for fees and charges set out in Sections 14.13.030, 14.13.040 and 14.13.050 shall be to the nearest 1/10¢ and all other charges to the nearest cent. Fees and charges set out in Sections 14.13.010 and 14.13.090 will only be adjusted in increments of \$5.00 and will not be adjusted until such time that the cumulative annual increase based on annual changes to the Consumer Price Index (CPI) is at least \$5.00.

(Ord. 24-_____ Sec 4, 2024; Ord. 5989 Sec 4, 2022; Ord. 5881 Sec. 4, 2020; Ord. 5465 Sec. 3, 2012; Ord. 4078 Sec. 1, 2002; Ord. 3619 Sec. 15, 1995)

Section 5. This ordinance shall be in full force and effect on January 1, 2025.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, this 5th day of November, 2024, and signed in authentication of its passage this 5th day of November, 2024.

Attest:

GRETLE J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

ORDINANCE NO. 24-_____ filed and
recorded in the office of the City Clerk of
the City of Kennewick Washington, this
6th day of November, 2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk

DATE OF PUBLICATION:

ORDINANCE EFFECTIVE DATE:

CITY OF KENNEWICK
ORDINANCE NO. 24-_____

AN ORDINANCE RELATING TO WATER CHARGES AND AMENDING
SECTIONS 14.13.030, 14.13.040, 14.13.050 AND 14.13.100 OF THE
KENNEWICK MUNICIPAL CODE

THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, DO ORDAIN AS
FOLLOWS:

Section 1. Section 14.13.030 of the Kennewick Municipal Code, be, and the same hereby is,
amended to read as follows:

14.13.030: - Residential Water Rates - Inside the City Limits.

This schedule applies to all residences and individual apartment houses within the City limits
where service is furnished through a separate meter for each such individual apartment:

- (1) Effective January 1, 2023~~2025~~, the service fee for a bi-monthly billing period will
be ~~\$29.24~~32.29 plus any modification authorized under Section 14.13.100.
Effective January 1, 2024~~2026~~, the service fee for a bi-monthly billing period will
be increased by an additional 5.15 percent, plus any modification authorized
under Section 14.13.100.
- (2) Effective January 1, 2023~~2025~~, all water use during the bi-monthly billing period
will be charged at ~~\$1.66~~1.837 per 100 cubic feet of water metered, plus any
modification authorized under Section 14.13.100. Effective January 1, 2024~~2026~~,
the charge for water use during the bi-monthly billing period will be increased by
an additional 5.15 percent, plus any modification authorized under Section
14.13.100.

(~~Ord. 24-_____~~ Sec1, 2024; Ord. 5989 Sec. 1, 2022; Ord. 5881 Sec. 1, 2020; Ord. 5786
Sec. 1, 2018.; Ord. 5677 Sec. 1, 2016; Ord. 3619 Sec. 5, 1995; Ord. 3121 Sec. 1(part), 1987;
Ord. 3084 Sec. 1(part), 1987; Ord. 2973 Sec. 1(part), 1985; Ord. 2910 Sec. 1(part), 1985; Ord.
2888 Sec. 3(part), 1985; Ord. 2481 Sec. 2(part), 1980)

Section 2. Section 14.13.040 of the Kennewick Municipal Code, be, and the same hereby is,
amended to read as follows:

14.13.040: - Residential Water Rates - Outside the City Limits.

This schedule applies to all residences, and the individual apartments in apartment houses outside the City limits where service is furnished through a separate meter for each such individual apartment:

- (1) Effective January 1, 20232025, the service fee for a bi-monthly billing period will be ~~\$64.28~~71.07, plus any modification authorized under Section 14.13.100. Effective January 1, 20242026, the service fee for a bi-monthly billing period will be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.
- (2) Effective January 1, 20232025, all water use during the bi-monthly billing period will be charged at ~~\$3.66~~4.046 per 100 cubic feet of water metered, plus any modification authorized under Section 14.13.100. Effective January 1, 20242026, the charge for water use during the bi-monthly billing period will be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.

(Ord. 24-_____ Sec 2, 2024; Ord. 5989 Sec 2, 2022; Ord. 5881 Sec 2, 2020; Ord. 5786 Sec. 2, 2018 ; Ord. 5677 Sec. 2, 2016; Ord. 3619 Sec. 6, 1995; Ord. 3121 Sec. 1(part), 1987; Ord. 3084 Sec. 1(part), 1987; Ord. 2973 Sec. 1(part), 1985; Ord. 2910 Sec. 1(part), 1985; Ord. 2888 Sec. 3(part), 1985; Ord. 2481 Sec. 2(part), 1980)

Section 3. Section 14.13.050 of the Kennewick Municipal Code, be, and the same hereby is, amended to read as follows:

14.13.050: - Multi-family, Commercial and Industrial Water Rates.

- (1) Effective January 1, 20232025, the following schedule, plus ~~\$1.66~~1.837 per 100 cubic feet of water, plus any modification to these rates authorized under Section 14.13.100, applies to all nonresidential water users within the City limits:

Meter Size	Rate For Two Months
¾"	\$56.47 <u>62.44</u>
1"	\$84.42 <u>93.34</u>
1½"	\$150.18 <u>166.04</u>
2"	\$197.28 <u>218.12</u>
3"	\$300.54 <u>332.30</u>
4"	\$441.39 <u>488.02</u>

6"	\$ 666.84 <u>737.29</u>
----	------------------------------------

Effective January 1, ~~2024~~2026, rates authorized under this section shall be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.

- (2) Effective January 1, ~~2023~~2025, the following schedule, plus \$~~3-6604.046~~ per 100 cubic feet of water, plus any modification to these rates authorized under Section 14.13.100, applies to all nonresidential water users outside the City limits:

Meter Size	Rate For Two Months
¾"	\$ 124.22 <u>137.35</u>
1"	\$ 185.74 <u>205.37</u>
1½"	\$ 330.37 <u>365.27</u>
2"	\$ 434.03 <u>479.88</u>
3"	\$ 661.19 <u>731.04</u>
4"	\$ 971.06 <u>1,073.66</u>
6"	\$ 1,467.05 <u>1,622.04</u>

Effective January 1, ~~2024~~2026, rates authorized under this section shall be increased by an additional 5.15 percent, plus any modification authorized under Section 14.13.100.

(Ord. 24-_____ ——— Sec 3, 2024; Ord. 5989 Sec 3, 2022; Ord. 5881 Sec 3, 2020; Ord. 5786 Sec. 3, 2018 ; Ord. 5677 Sec. 3, 2016; Ord. 3619 Sec. 7, 1995; Ord. 3121 Sec. 1(part), 1987; Ord. 3084 Sec. 1(part), 1987; Ord. 2973 Sec. 1(part), 1985; Ord. 2910 Sec. 1(part), 1985; Ord. 2888 Sec. 3(part), 1985; Ord. 2481 Sec. 2(part), 1980)

Section 4. Section 14.13.100 of the Kennewick Municipal Code, be, and the same hereby is, amended to read as follows:

14.13.100: - Indexing Fees and Charges.

The fees and charges for water services set out in Sections 14.13.010, 14.13.030, 14.13.040, 14.13.050, and 14.13.090 shall be indexed annually by the Treasurer to reflect 100 percent of any change from the Consumer Price Index (U.S. Cities - Urban Wage Earners and Clerical Workers

- CPI-W) for October, or other comparable index if not published. Effective beginning with rates that will be in effect on January 1, ~~2025~~2027, the fees and charges for water services set out in Sections 14.13.030, 14.13.040, and 14.13.050 shall also be indexed annually by the Treasurer to reflect 100 percent of any change from the Consumer Price Index (U.S. Cities - Urban Wage Earners and Clerical Workers - CPI-W) for October, or other comparable index if not published. The Treasurer shall adjust the fees and publish them each December to take effect on all goods and services delivered or contracted after the beginning of each year and all utility bills mailed after the first of each year. In no event shall the cumulative change in rates be less than zero percent nor more than four percent per year, nor may the change in any given year be less than zero percent nor more than four percent. Unit prices for fees and charges set out in Sections 14.13.030, 14.13.040 and 14.13.050 shall be to the nearest 1/10¢ and all other charges to the nearest cent. Fees and charges set out in Sections 14.13.010 and 14.13.090 will only be adjusted in increments of \$5.00 and will not be adjusted until such time that the cumulative annual increase based on annual changes to the Consumer Price Index (CPI) is at least \$5.00.

(Ord. 24-_____—Sec 4, 2024; Ord. 5989 Sec 4, 2022; Ord. 5881 Sec. 4, 2020; Ord. 5465 Sec. 3, 2012; Ord. 4078 Sec. 1, 2002; Ord. 3619 Sec. 15, 1995)

Section 5. This ordinance shall be in full force and effect on January 1, ~~2023~~2025.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, this 5th day of November, 2024, and signed in authentication of its passage this 5th day of November, 2024.

Attest:

GRETLE J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

ORDINANCE NO. 24-_____ filed and
recorded in the office of the City Clerk of
the City of Kennewick Washington, this
6th day of N, 2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk

DATE OF PUBLICATION:

ORDINANCE EFFECTIVE DATE:



City Council Meeting

John Cowling, P.E. Public Works Director, City of Kennewick

Angie Sanchez Virnoche, Principal, FCS

Chase Bozett, Project Consultant, FCS

November 5th, 2024





Background

- Water and Wastewater initial Rate Study completed in 2016
 - » Covered 20-year time period
- City practice to revisit rate plan during biennium budget process
 - » Forecast rates for the next two-year period
- Historical rate increases

Utility	2019	2020	2021	2022	2023	2024	2025	2026
Water	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%
Wastewater	7.40%	7.40%	7.40%	6.65%	5.00%	5.00%	5.00%	5.00%

Adopted *Forecasted in 2022*



Proposed Water Residential Bill Impacts

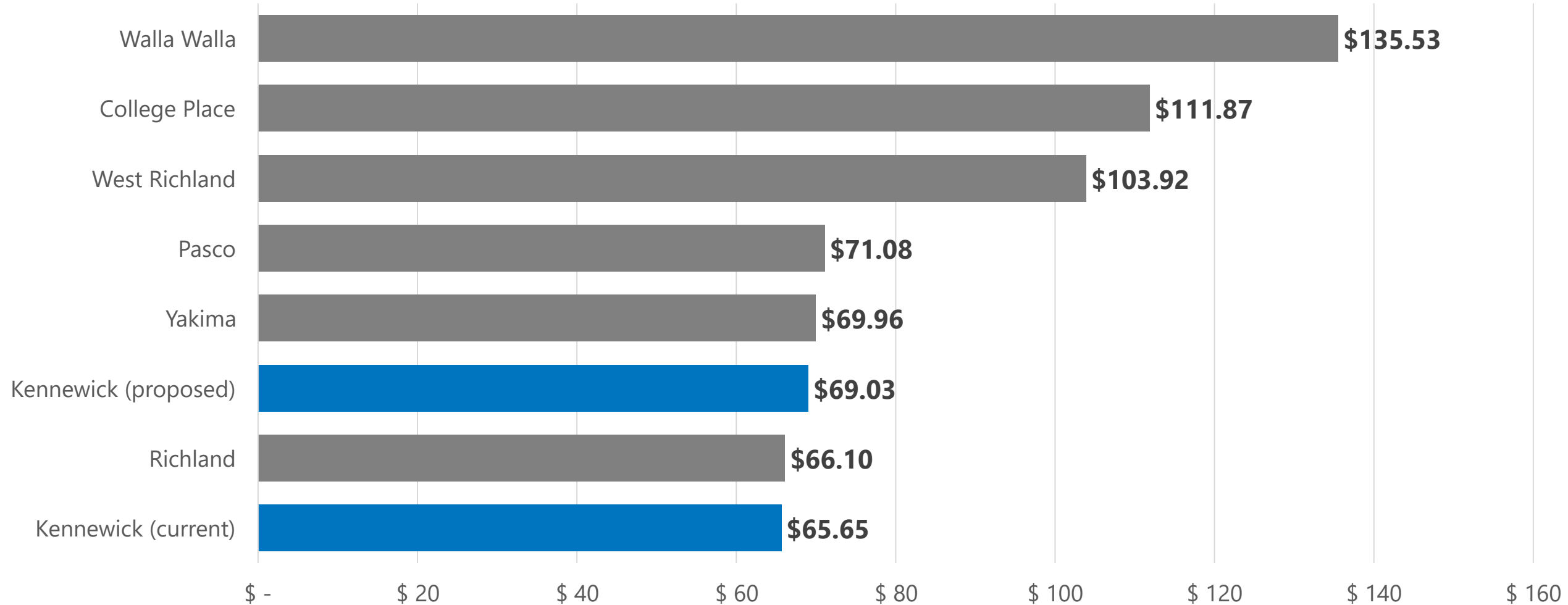
Water Sample Bill		Existing	2025	2026	2027	2028	2029	2030
Policy Based Inflationary Increase			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
<u>Additional Increase</u>			<u>2.15%</u>	<u>2.15%</u>	<u>2.15%</u>	<u>1.00%</u>	<u>1.00%</u>	<u>1.00%</u>
Proposed Increase			5.15%	5.15%	5.15%	4.00%	4.00%	4.00%
Sample Residential Bi-Monthly Bill	\$65.65		\$69.03	\$72.58	\$76.32	\$79.37	\$82.55	\$85.85
Sample Residential Monthly Bill	\$32.83		\$34.52	\$36.29	\$38.16	\$39.69	\$41.28	\$42.93
Monthly Increase			\$1.69	\$1.77	\$1.87	\$1.53	\$1.59	\$1.65

- Rate plan can be maintained at 5.15% increase for 2025/2026 biennium
 - » Approximately \$1.73 monthly increase



Water Jurisdiction Survey

Residential Bi-Monthly Bill (1" Meter, 20 ccf)





Proposed Wastewater Residential Bill Impacts

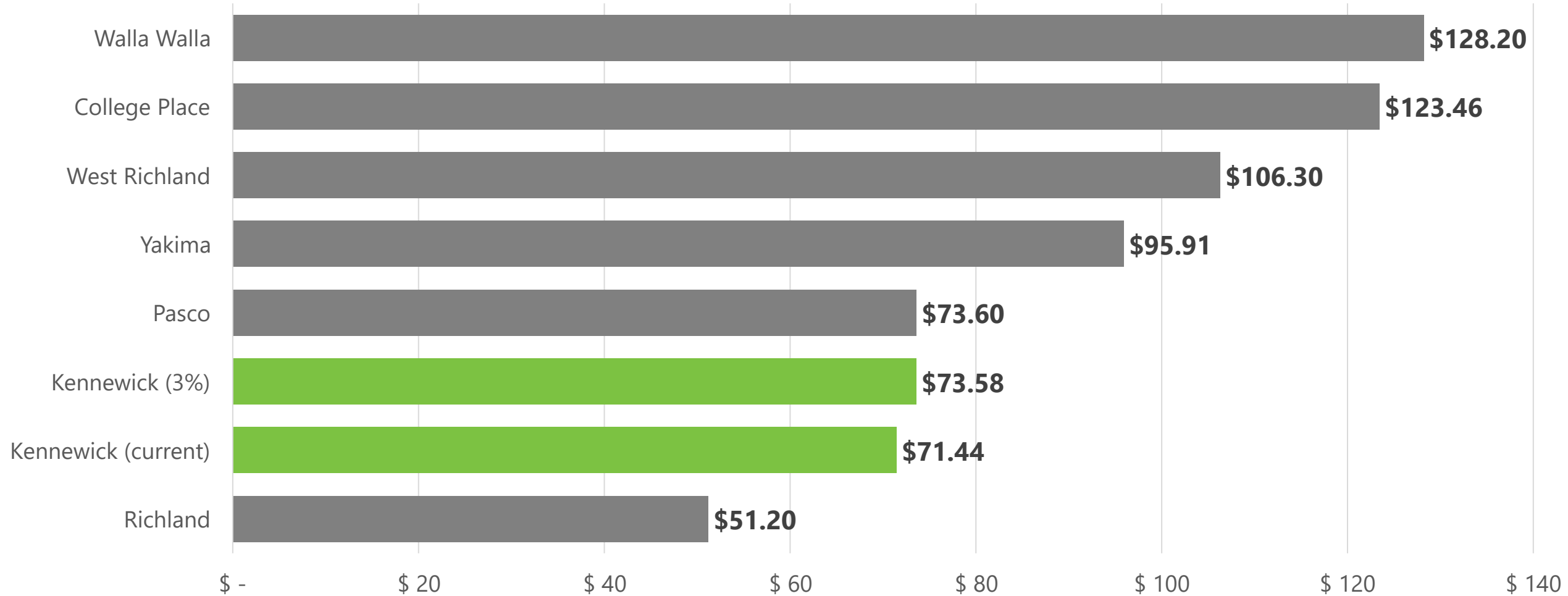
Wastewater Sample Bill		Existing	2025	2026	2027	2028	2029	2030
Policy Based Inflationary Increase			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
<u>Additional Increase</u>			<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
Proposed Increase			3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Sample Residential Bi-Monthly Bill		\$71.44	\$73.58	\$75.79	\$78.06	\$80.40	\$82.81	\$85.29
Sample Residential Monthly Bill		\$35.72	\$36.79	\$37.90	\$39.03	\$40.20	\$41.41	\$42.65
Monthly Increase			\$1.07	\$1.11	\$1.13	\$1.17	\$1.21	\$1.24

- Reduced rate plan to 3.0% increase for 2025/2026 rate setting period
 - » Approximately \$1.09 monthly increase



Wastewater Jurisdiction Survey

Residential Bi-Monthly Bill (11 ccf water usage if applicable)





Staff Recommendation

- Adopt presented Ordinance maintaining existing rate path for the water utility (5.15%)
 - » Monthly increase to average residential bill of \$1.69 in 2025 and \$1.77 in 2026
- Adopt presented Ordinance adjusting wastewater rates to align with policy based inflationary adjustments (3.0%)
 - » Monthly increase to average residential bill of \$1.07 in 2025 and \$1.11 in 2026
- Questions?

Council Agenda Coversheet	Item Number: 5.b. Date: 11/5/2024 Item Type: Ordinance Subject: Ordinance: Setting Sewer Utility Rates Department: Public Works Ordinance #:	Category: Ordinance/Reso
		
<u>Recommendation</u> Staff recommends adoption of the ordinance as presented amending section 14.26 Sanitary Sewer User Charges of the Kennewick Municipal Code (KMC) <u>Motion for Consideration</u> Motion to adopt the ordinance as presented. <u>Summary</u> The City of Kennewick completed a Council authorized water-sewer rate study in 2016 with the City's selected consultant FCS Group. The primary purpose of the study was to determine whether the utility's current rate structure will provide funding to adequately meet the utility's financial obligations and capital improvements required to maintain the current system and meet additional needs required to serve new growth. The General Sewer Comprehensive Plan, Wastewater Treatment Plant Facility Plan, both approved and adopted by the City Council in 2015, along with the Water Comprehensive Plan in 2016, were used to assist in the development of the rate study. The current rate study is a multi-year financial plan that will provide revenue requirements to meet the following obligations: Operating Expenses, Debt Service, Capital Expenditures, and Fiscal Policy Achievement. The rate study evaluated the sufficiency of the current rates on a standalone basis and developed a rate implementation strategy. Council adopted this strategy for the 2023/2024 biennial budget with a rate increase in 2023 and 2024. Staff recommendation is for a rate implementation in 2025 of 3.0% for Sewer and then implement the same rates again in 2026. In 2026 the plan will be reevaluated for the 2027/2028 biennial budget. <u>Alternatives</u> None recommended. <u>Fiscal Impact</u> N/A		
<u>Attachments:</u> 1. Ordinance 2. Redline		

CITY OF KENNEWICK
ORDINANCE NO. 24-_____

AN ORDINANCE RELATING TO SANITARY SEWER CHARGES
AND AMENDING SECTIONS 14.26.010, 14.26.020, 14.26.030,
14.26.040 AND 14.26.70 OF THE KENNEWICK MUNICIPAL CODE

THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Section 14.26.010 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.010: - User Charge Basis.

Each connection to the sanitary sewer from single-family dwelling unit, multi-family dwelling unit, commercial and industrial accounts shall have a user charge assessed and collected bi-monthly by the City Treasurer on the following basis:

- (1) Single-Family Dwelling Unit Accounts: A flat fee charge rate shall be charged.
- (2) Multi-Family Dwelling Unit Accounts: A variable charge rate based upon metered water consumption shall be charged. The rate shall be determined as follows:
 - (a) A rate, never less than a minimum charge, equal in amount to the single-family dwelling unit flat fee charge rate, normally;
 - (b) Effective January 1, 2025, a rate determined by multiplying the user charge rate (dollars per 100 cubic feet discharged) by the metered water consumption in hundred cubic feet and an \$19.01 per unit service fee, plus any modifications authorized under Section 14.26.070, for each two-month billing cycle and effective January 1, 2026, a rate determined by multiplying the user charge rate (dollars per 100 cubic feet discharged) by the metered water consumption in 100 cubic feet and a rate that has been increased by an additional 3.0 percent, plus any modifications authorized under Section 14.26.070 per unit service fee for each two-month billing cycle; but
 - (c) Never higher than a maximum charge determined by multiplying the number of dwelling units in the account by the single-family dwelling unit flat fee rate.
- (3) Commercial/Industrial Accounts: A variable charge rate based upon metered water consumption shall be charged. The rate shall be determined as follows:

- (a) A rate never less than a minimum charge equal in amount to the single-family dwelling unit flat fee charge rate, normally;
 - (b) Effective January 1, 2025, a rate determined by multiplying the user's charge rate (dollars per 100 cubic feet discharged) by the metered water consumption in hundred cubic feet and an \$19.01 per unit service fee, plus any modifications authorized under Section 14.26.070, for each two-month billing cycle and effective January 1, 2026, a rate determined by multiplying the user charge rate (dollars per 100 cubic feet discharged) by the metered water consumption in hundred cubic feet and a rate that has been increased by an additional 3.0 percent, plus any modifications authorized under Section 14.26.070 per unit service fee for each two-month billing cycle; but
 - (c) If the metered water consumption is not representative of the wastewater discharged into the sanitary sewer, a factor "K" may be applied to the rate determined in subdivision (b) of this subsection. The factor "K" is a ratio found by dividing the volume of wastewater discharged by the metered water consumption, both determined simultaneously during a common time period. It is the responsibility of the City that their proposed "K" factor is a valid value.
- (4) Outside City Limits Accounts: All accounts outside the City limits shall be assessed a 50-percent surcharge over and above the respective inside City limits rates.
 - (5) The usual charge for sanitary sewer service shall be billed to the user, when possible, on the same bill as for domestic water. Sewer service charges shall become delinquent 15 days after date of billing.
 - (6) Quantity discounts to large-volume users shall not be allowed.

(Ord. 24-_____ Sec. 1, 2024; Ord. 5990 Sec. 1, 2022; Ord. 5882 Sec. 1, 2020; Ord. 5787 Sec. 1, 2018 ; Ord. 5678 Sec. 1, 2016; Ord. 3619 Sec. 11, 1995; Ord. 2480 Sec. 8, 1980; Ord. 1919 Sec. 2(part), 1976)

Section 2. Section 14.26.020 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.020: - Single-Family Dwelling Unit Rate - Schedule 1.

This schedule applies to all single-family dwelling units connected or required to be connected to the sanitary sewer. Effective January 1, 2025, within the City limits, the rate shall be a flat fee bi-monthly user charge of \$73.58, plus any modification authorized under Section 14.26.070. Effective January 1, 2026, within City limits, the rate shall be a flat fee bi-monthly user charge that has been increased by an additional 3.0 percent, plus any modification authorized under Section 14.26.070.

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(Ord. 24-_____ Sec 2, 2024; Ord. 5990 Sec. 2, 2022; Ord. 5882 Sec. 2, 2020; Ord. 5787 Sec. 2, 2018 ; Ord. 5678 Sec. 2, 2016; Ord. 5678 Sec. 2, 2016; Ord. 3619 Sec. 12, 1995; Ord. 3121 Sec. 2(part), 1987; Ord. 3084 Sec. 2(part), 1987; Ord. 2973 Sec. 2(part), 1985; Ord. 2910 Sec. 2(part), 1985; Ord. 2888 Sec. 6(part) 1985; Ord. 2480 Sec. 9(part), 1980; Ord. 1919 Sec. 2(part), 1976)

Section 3. Section 14.26.030 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.030: - Multi-family Dwelling Unit Rate - Schedule 2.

This schedule applies to all multi-family dwelling units connected or required to be connected to the sanitary sewer. Effective January 1, 2025, within the City limits, the bi-monthly rate shall be calculated separately for each account using a user charge rate of \$3.446, plus any modification authorized under Section 14.26.070, for each 100 cubic feet of metered water consumption, plus the service charge in Section 14.26.010. Effective January 1, 2026, the bi-monthly rate shall be calculated separately for each account using a user charge rate that has been increased by an additional 3.0 percent, plus any modification authorized under Section 14.26.070, for each 100 cubic feet of metered water consumption, plus the service charge in Section 14.26.010.

(Ord. 24-_____ Sec. 3, 2024; Ord. 5990 Sec. 3, 2022; Ord. 5882 Sec. 3, 2020; Ord. 5787 Sec. 3, 2018 ; Ord. 5678 Sec. 3, 2016; Ord. 3619 Sec. 13, 1995; Ord. 3121 Sec. 2(part), 1987; Ord. 3084 Sec. 2(part), 1987; Ord. 2973 Sec. 2(part), 1985; Ord. 2910 Sec. 2(part), 1985; Ord. 2888 Sec. 6(part), 1985; Ord. 2480 Sec. 9(part), 1980; Ord. 1919 Sec. 2(part), 1976)

Section 4. Section 14.26.040 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.040: - Commercial/Industrial Accounts - Schedule 3.

This schedule applies to all other accounts not classified in Schedules 1 or 2 that are connected or required to be connected to the sanitary sewer. Effective January 1, 2025, within the City limits, the bi-monthly rate shall be calculated separately for each account using a user charge rate of \$3.446 plus any modification authorized under Section 14.26.070, for each 100 cubic feet of metered water consumption, plus the service charge in Section 14.26.010. Effective January 1, 2026, the bi-monthly rate shall be calculated separately for each account using a user charge rate that has been increased by an additional 3.0 percent, plus any modification authorized under Section 14.26.070, for each 100 cubic feet of metered water consumption, plus the service charge in Section 14.26.010.

(Ord. 24-_____ Sec. 4, 2024; Ord 5990 Sec. 4, 2022; Ord 5882 Sec. 4, 2020; Ord. 5787 Sec. 4, 2018 ; Ord. 5678 Sec. 4, 2016; Ord. 3619 Sec. 14, 1995; Ord. 3121 Sec. 2(part), 1987; Ord. 3084 Sec. 2(part), 1987; Ord. 2973 Sec. 2(part), 1985; Ord. 2910 Sec. 2(part), 1985; Ord. 2888 Sec. 6(part), 1985; Ord. 2480 Sec. 9(part), 1980; Ord. 1919 Sec. 2(part), 1976)

Section 5. Section 14.26.070 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.070: - Indexing Fees and Charges.

Effective beginning with rates that will be in effect on January 1, 2027, the fees and charges for sewer services set out in Sections 14.26.010, 14.26.020, 14.26.030, and 14.26.040, shall be indexed annually by the Treasurer to reflect 100 percent of any change from the Consumer Price Index (U.S. Cities - Urban Wage Earners and Clerical Workers - CPI-W) for October, or other comparable index if not published. The Treasurer shall adjust the fees and publish them each December to take effect on all goods and services delivered or contracted after the beginning of each year and all utility bills mailed after the first of each year. In no event shall the cumulative change in rates be less than zero percent nor more than four percent per year nor may the change in any given year be less than zero percent nor more than four percent. Unit prices shall be to the nearest 1/10¢ and all other charges to the nearest cent.

(Ord. ____ Sec. 5, 2024; Ord. 5990 Sec. 5, 2022; Ord. 5882 Sec. 5, 2020; Ord. 4078 Sec. 2, 2002; Ord. 3619 Sec. 16, 1995)

Section 6. This ordinance shall be in full force and effect on January 1, 2025.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, this 5th day of November, 2024, and signed in authentication of its passage this 5th day of November, 2024.

Attest:

GRETL J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

ORDINANCE NO. 24-____ filed and
recorded in the office of the City Clerk of
the City of Kennewick Washington, this
6th day of November, 2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk

DATE OF PUBLICATION:

ORDINANCE EFFECTIVE DATE:

CITY OF KENNEWICK
ORDINANCE NO. 24-

AN ORDINANCE RELATING TO SANITARY SEWER CHARGES
AND AMENDING SECTIONS 14.26.010, 14.26.020, 14.26.030,
14.26.040 AND 14.26.70 OF THE KENNEWICK MUNICIPAL CODE

THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, DO ORDAIN AS
FOLLOWS:

Section 1. Section 14.26.010 of the Kennewick Municipal Code, be, and the same hereby is
amended to read as follows:

14.26.010: - User Charge Basis.

Each connection to the sanitary sewer from single-family dwelling unit, multi-family dwelling unit, commercial and industrial accounts shall have a user charge assessed and collected bi-monthly by the City Treasurer on the following basis:

- (1) Single-Family Dwelling Unit Accounts: A flat fee charge rate shall be charged.
- (2) Multi-Family Dwelling Unit Accounts: A variable charge rate based upon metered-water consumption shall be charged. The rate shall be determined as follows:
 - (a) A rate, never less than a minimum charge, equal in amount to the single-family dwelling unit flat fee charge rate, normally;
 - (b) Effective January 1, 20232025, a rate determined by multiplying the user charge rate (dollars per 100 cubic feet discharged) by the metered water consumption in hundred cubic feet and an \$17.5819.01 per unit service fee, plus any modifications authorized under Section 14.26.070, for each two-month billing cycle and effective January 1, 20242026, a rate determined by multiplying the user charge rate (dollars per 100 cubic feet discharged) by the metered water consumption in 100 cubic feet and a rate that has been increased by an additional 5.03.0 percent, plus any modifications authorized under Section 14.26.070 per unit service fee for each two-month billing cycle; but
 - (c) Never higher than a maximum charge determined by multiplying the number of dwelling units in the account by the single-family dwelling unit flat fee rate.
- (3) Commercial/Industrial Accounts: A variable charge rate based upon metered water consumption shall be charged. The rate shall be determined as follows:
 - (a) A rate never less than a minimum charge equal in amount to the single-family dwelling unit flat fee charge rate, normally;

ORDINANCE 24- - Page 1

- (b) Effective January 1, ~~2023~~2025, a rate determined by multiplying the user's charge rate (dollars per 100 cubic feet discharged) by the metered water consumption in hundred cubic feet and an ~~\$17.58~~19.01 per unit service fee, plus any modifications authorized under Section 14.26.070, for each two-month billing cycle and effective January 1, ~~2024~~2026, a rate determined by multiplying the user charge rate (dollars per 100 cubic feet discharged) by the metered water consumption in hundred cubic feet and a rate that has been increased by an additional ~~5.03.0~~ percent, plus any modifications authorized under Section 14.26.070 per unit service fee for each two-month billing cycle; but
- (c) If the metered water consumption is not representative of the wastewater discharged into the sanitary sewer, a factor "K" may be applied to the rate determined in subdivision (b) of this subsection. The factor "K" is a ratio found by dividing the volume of wastewater discharged by the metered water consumption, both determined simultaneously during a common time period. It is the responsibility of the City that their proposed "K" factor is a valid value.
- (4) Outside City Limits Accounts: All accounts outside the City limits shall be assessed a 50-percent surcharge over and above the respective inside City limits rates.
- (5) The usual charge for sanitary sewer service shall be billed to the user, when possible, on the same bill as for domestic water. Sewer service charges shall become delinquent 15 days after date of billing.
- (6) Quantity discounts to large-volume users shall not be allowed.

(~~Ord. 24-_____~~ Sec. 1, 2024; Ord. 5990 Sec. 1, 2022; Ord. 5882 Sec. 1, 2020; Ord. 5787 Sec. 1, 2018 ; Ord. 5678 Sec. 1, 2016; Ord. 3619 Sec. 11, 1995; Ord. 2480 Sec. 8, 1980; Ord. 1919 Sec. 2(part), 1976)

Section 2. Section 14.26.020 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.020: - Single-Family Dwelling Unit Rate - Schedule 1.

This schedule applies to all single-family dwelling units connected or required to be connected to the sanitary sewer. Effective January 1, ~~2023~~2025, within the City limits, the rate shall be a flat fee bi-monthly user charge of ~~\$68.04~~73.58, plus any modification authorized under Section 14.26.070. Effective January 1, ~~2024~~2026, within City limits, the rate shall be a flat fee bi-monthly user charge that has been increased by an additional ~~5.03.0~~ percent, plus any modification authorized under Section 14.26.070.

(~~Ord. 24-~~ Sec 2, 2024; Ord. 5990 Sec. 2, 2022; Ord. 5882 Sec. 2, 2020; Ord. 5787 Sec. 2, 2018 ; Ord. 5678 Sec. 2, 2016; Ord. 5678 Sec. 2, 2016; Ord. 3619 Sec. 12, 1995; Ord. 3121 Sec. 2(part), 1987; Ord. 3084 Sec. 2(part), 1987; Ord. 2973 Sec. 2(part), 1985; Ord. 2910 Sec. 2(part), 1985; Ord. 2888 Sec. 6(part) 1985; Ord. 2480 Sec. 9(part), 1980; Ord. 1919 Sec. 2(part), 1976)

Section 3. Section 14.26.030 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.030: - Multi-family Dwelling Unit Rate—Schedule 2.

This schedule applies to all multi-family dwelling units connected or required to be connected to the sanitary sewer. Effective January 1, ~~2023~~2025, within the City limits, the bi-monthly rate shall be calculated separately for each account using a user charge rate of ~~\$3.1873.446~~, plus any modification authorized under Section 14.26.070, for each 100 cubic feet of metered water consumption, plus the service charge in Section 14.26.010. Effective January 1, ~~2024~~2026, the bi-monthly rate shall be calculated separately for each account using a user charge rate that has been increased by an additional ~~5.03.0~~ percent, plus any modification authorized under Section 14.26.070, for each 100 cubic feet of metered water consumption, plus the service charge in Section 14.26.010.

(~~Ord. 24-~~ Sec. 3, 2024; Ord. 5990 Sec. 3, 2022; Ord. 5882 Sec. 3, 2020; Ord. 5787 Sec. 3, 2018 ; Ord. 5678 Sec. 3, 2016; Ord. 3619 Sec. 13, 1995; Ord. 3121 Sec. 2(part), 1987; Ord. 3084 Sec. 2(part), 1987; Ord. 2973 Sec. 2(part), 1985; Ord. 2910 Sec. 2(part), 1985; Ord. 2888 Sec. 6(part), 1985; Ord. 2480 Sec. 9(part), 1980; Ord. 1919 Sec. 2(part), 1976)

Section 4. Section 14.26.040 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.040: - Commercial/Industrial Accounts —Schedule 3.

This schedule applies to all other accounts not classified in Schedules 1 or 2 that are connected or required to be connected to the sanitary sewer. Effective January 1, ~~2023~~2025, within the City limits, the bi-monthly rate shall be calculated separately for each account using a user charge rate of ~~\$3.1873.446~~ plus any modification authorized under Section 14.26.070, for each 100 cubic feet of metered water consumption, plus the service charge in Section 14.26.010. Effective January 1, ~~2024~~2026, the bi-monthly rate shall be calculated separately for each account using a user charge rate that has been increased by an additional ~~5.03.0~~ percent, plus any modification authorized under Section 14.26.070, for each 100 cubic feet of metered water consumption, plus the service charge in Section 14.26.010.

(~~Ord. 24-~~ Sec. 4, 2024; Ord 5990 Sec. 4, 2022; Ord 5882 Sec. 4, 2020; Ord. 5787 Sec. 4, 2018 ; Ord. 5678 Sec. 4, 2016; Ord. 3619 Sec. 14, 1995; Ord. 3121 Sec. 2(part), 1987; Ord. 3084 Sec. 2(part), 1987; Ord. 2973 Sec. 2(part), 1985; Ord. 2910 Sec. 2(part), 1985; Ord. 2888 Sec. 6(part), 1985; Ord. 2480 Sec. 9(part), 1980; Ord. 1919 Sec. 2(part), 1976)

Section 5. Section 14.26.070 of the Kennewick Municipal Code, be, and the same hereby is amended to read as follows:

14.26.070: - Indexing Fees and Charges.

Effective beginning with rates that will be in effect on January 1, ~~2025~~2027, the fees and charges for sewer services set out in Sections 14.26.010, 14.26.020, 14.26.030, and 14.26.040, shall be indexed annually by the Treasurer to reflect 100 percent of any change from the Consumer Price Index (U.S. Cities - Urban Wage Earners and Clerical Workers - CPI-W) for October, or other comparable index if not published. The Treasurer shall adjust the fees and publish them each December to take effect on all goods and services delivered or contracted after the beginning of each year and all utility bills mailed after the first of each year. In no event shall the cumulative change in rates be less than zero percent nor more than four percent per year nor may the change in any given year be less than zero percent nor more than four percent. Unit prices shall be to the nearest 1/10¢ and all other charges to the nearest cent.

(Ord. Sec. 5, 2024; Ord. 5990 Sec. 5, 2022; Ord. 5882 Sec. 5, 2020; Ord. 4078 Sec. 2, 2002; Ord. 3619 Sec. 16, 1995)

Section 56. This ordinance shall be in full force and effect on January 1, ~~2023~~2025.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, this 5th day of November, 2024, and signed in authentication of its passage this 5th day of November, 2024.

Attest:

GRETLE J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

ORDINANCE NO. 24-_____ filed and
recorded in the office of the City Clerk of
the City of Kennewick Washington, this
6th day of November, 2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk

DATE OF PUBLICATION:

ORDINANCE EFFECTIVE DATE:

Council Agenda Coversheet	Item Number: 6.a. Date: 11/5/2024 Item Type: Public Hearing	Category: Public Mtg / Hrg
	Subject: Establishing a Transportation Benefit District (Public Hearing; Final Action is Scheduled on November 19.) Department: Finance	
<u>Recommendation</u> Staff recommends Council hold a public hearing regarding the boundary of the proposed Transportation Benefit District and the transportation improvements proposed to be funded. <u>Motion for Consideration</u> Not applicable. <u>Summary</u> City Council and staff have been working through the 2025/2026 biennial budget process since the Council Retreat in May 2024. During the workshop discussions in July and September 2024, staff presented to Council several alternative revenue sources to fund the many priority projects scheduled to occur in this next biennium. The creation of a Transportation Benefit District was one of the proposals discussed at workshop with positive feedback from Council. If approved by Council, one of the transportation improvement projects which could be funded with a TBD would be the City's pavement preservation program. A City may form a Transportation Benefit District (TBD) by ordinance, following a public hearing, if it finds that the action is in the public interest (RCW 36.73.050). The first step is to hold a public hearing regarding the boundary of the proposed district and the activities proposed to be funded by the district. For purposes of the public hearing discussion, staff is recommending Council consider the creation of a TBD with a boundary coterminous with the City of Kennewick boundary. Staff is also recommending the TBD revenue generated be utilized to fund the transportation improvement projects listed in the City's 20-year and 6- year TIP, including the pavement preservation program. The only action by Council at this stage is to hold the public hearing and receive public comment. The ordinance creating the TBD is scheduled for Council consideration at the November 19, 2024, regular meeting. <u>Alternatives</u> None recommended. <u>Fiscal Impact</u>		
Attachments: 1. Presentation		

City of Kennewick, WA

Transportation Benefit District

Transportation Benefit District

Transportation Benefit Districts are quasi-municipal corporations with independent taxing authority that can impose an array of taxes or fees either through a vote of the people or through district board action.

The revenue generated is required to be spent on transportation improvements within the District. Chapter 36.73 RCW

Cities have the authority to form a Transportation Benefit District. RCW 35.21.225



Creation of a TBD

- Per RCW 36.73.050:
- The City Council may create the TBD by ordinance after holding a public hearing on the formation and boundaries of the district.
- Ordinance shall specify the boundaries of the TBD, source of revenue and transportation improvements that will be funded.



Governing and Boundaries

- Governing:

Almost all TBD's share the same boundaries as their established jurisdiction, in which case they are governed by City Council.

If the boundary does not match the council needs to appoint a governing board.

- Boundaries options include:

- City boundaries but will need to adjust for each annexation.
- Urban growth area – need to partner with the County.
- Specific area of the City.

What can be funded with a TBD?

- Transportation benefit district revenue may be used for transportation improvements included in a local, regional, or state transportation plans.
- Improvements can range from roads and transit service to sidewalks and transportation demand management.
- Construction, maintenance, and operation costs are eligible.

Funding Sources

Funding sources include a sales tax, vehicle fee, property tax

SALES TAX

- Most common funding source
- 0.1% sales tax may be imposed by a majority vote of the TBD board (Council) as long as the TBD includes all the area in the jurisdiction
- 0.2% -0.3% sales tax must be voter approved.
- The sales tax may not exceed 10-years, but they can be renewed for additional 10-year periods by voter approval or governing board approval.
- Per discussion at council workshops on July 23, 2024 and September 24, 2024, staff is recommending the TBD board approved 0.1% sales tax.

Entities with TBD

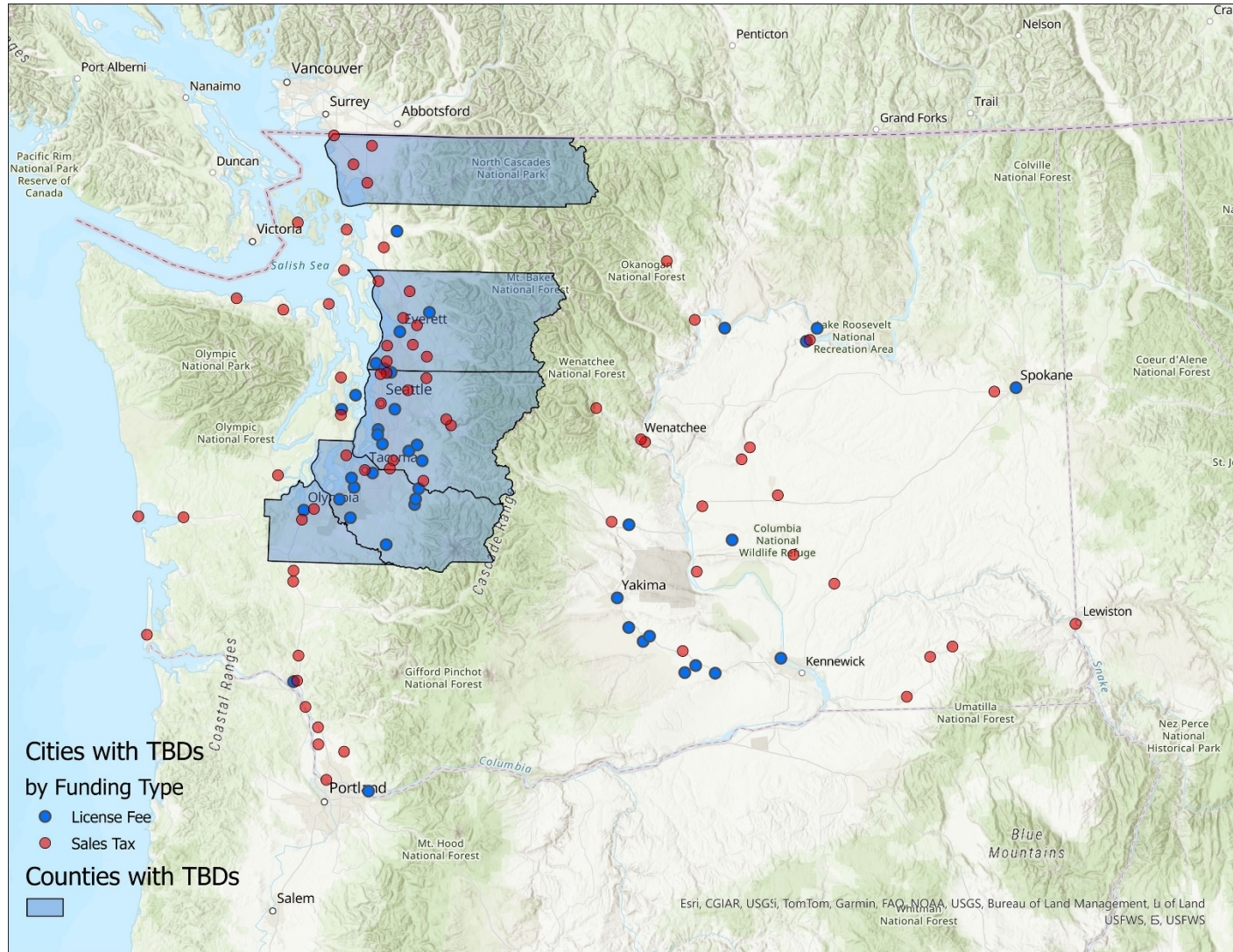
VEHICLE FEE

- Bainbridge Island
- Black Diamond
- Bremerton
- Bridgeport
- Buckley
- Burien
- Carbanado
- Covington
- Des Moines
- DuPont
- Eatonville
- Edmonds
- Electric City
- Elmer City
- Enumclaw
- Everett
- Fife
- Grandview
- Granite Falls
- Kenmore
- Kittitas
- Lake Forest Park
- Lakewood
- Lynnwood
- Mabton
- MappleValley
- Mercer Island
- Mercer Island
- Mountlake Terrace
- Normandy Park
- Olympia
- Prosser
- Richland
- Roy
- Royal City
- Seattle
- Sedro-Woolley
- Shoreline
- Snoqualmie
- Soap Lake
- Spokane
- Toppenish
- University Place
- Vancouver
- Wapato
- Washougal
- Wilkeson
- Yakima
- Zillah

SALES TAX

- Aberdeen
- Airway Heights
- Anacortes
- Arlington
- Auburn
- Battle Ground
- Bellingham
- Blaine
- Castle Rock
- Centralia
- Chehalis
- Clarkston
- Connell
- Dayton
- Duvall
- East Wenatchee
- Ellensburg
- Ephrata
- Ferndale
- Friday Harbor
- George
- Gig Harbor
- Grand Coulee
- Kalama
- Kelso
- Lacey
- Lake Forest Park
- Lake Stevens
- Marysville
- Mattawa
- Monroe
- Moses Lake
- Mt. Vernon
- Mukilteo
- North Bend
- Oak Harbor
- Ocean Shores
- Othello
- Pacific
- Pateros
- Port Angeles
- Port Orchard
- Port Townsend
- Poulsbo
- Redmond
- Ridgefield
- Seattle
- Sequim
- Shelton
- Shoreline
- Snohomish
- Snoqualmie
- Soap Lake
- Stanwood
- Sunnyside
- Tacoma
- Tumwater
- Twisp
- Vancouver
- Waitsburg
- Walla Walla
- Wenatchee
- Woodland

Entities with TBD



2025-2026 Budget Revenue Proposal

SALES TAX

- TBD boundary to match City of Kennewick Boundary
- Councilmanic 0.1% Sales Tax
 - Anticipated to generate \$3 million annually

TRANSPORTATION IMPROVEMENTS FUNDED

- Projects on the 20 year TIP
- Projects on the 6 year TIP
 - Pavement preservation program.
 - City contribution to Pavement Preservation Program is \$3M annually and \$6M for the biennium.
 - TBD revenue can fund this program.

Sales Tax Comparison with TBD

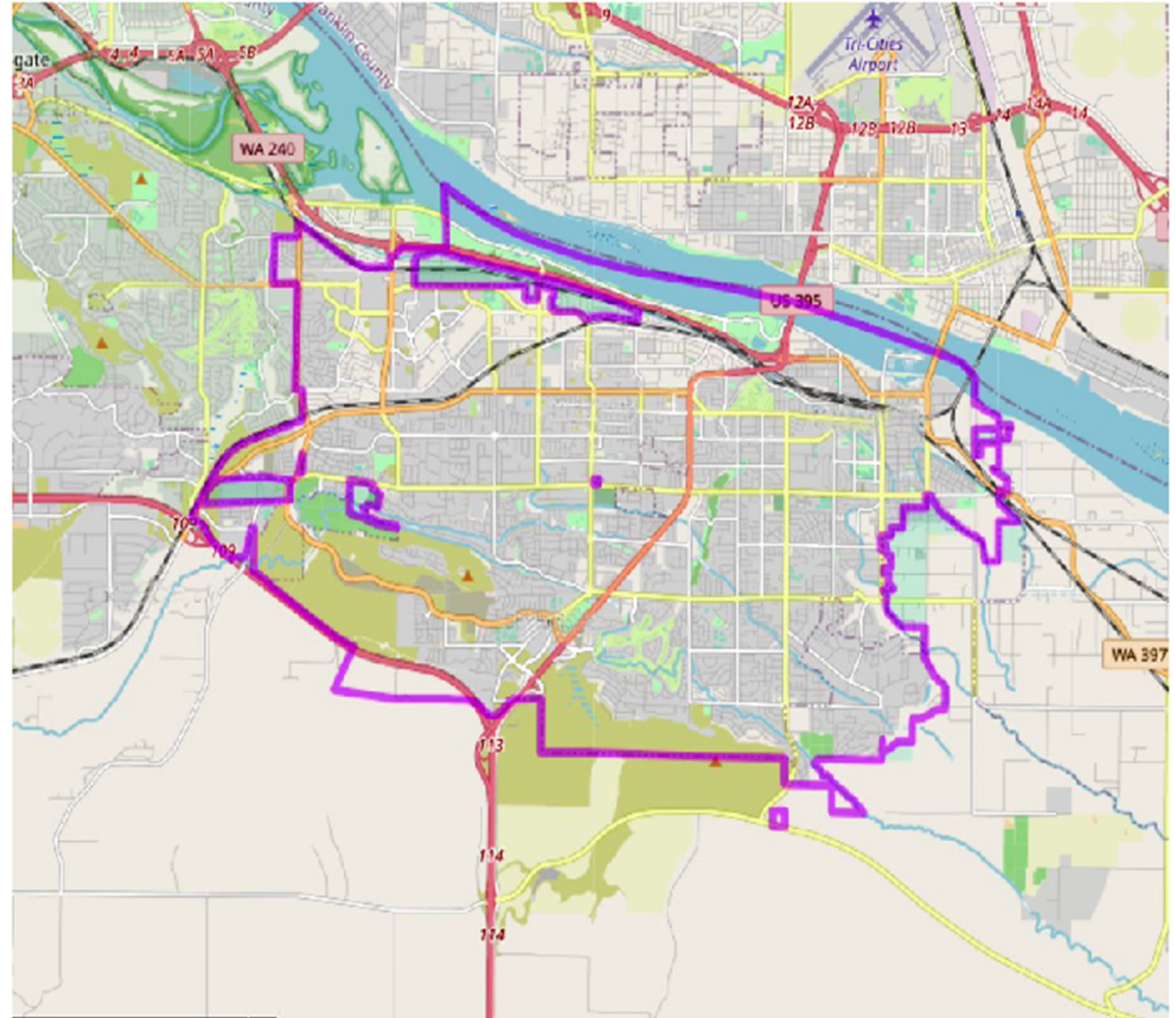
	Total Sales and Use Tax Rate	State Sales and Use Tax Rate	Local City/County Sales & Use Tax
Kennewick	8.7	6.5	2.2
Richland	8.7	6.5	2.2
Pasco	8.9	6.5	2.4
West Richland	8.7	6.5	2.2
Walla Walla	8.9	6.5	2.4
Prosser	8.7	6.5	2.2

Example		Example	
\$ 10.00	Purchase Amount	\$ 100.00	Purchase Amount
\$ 0.87	Current Tax	\$ 8.70	Current Tax
\$ 0.88	w/ proposed TBD	\$ 8.80	w/ proposed TBD
\$ 0.01	<i>Diff</i>	\$ 0.10	<i>Diff</i>
TBD would add one cent to a \$10 purchase on taxable sales in Kennewick, raising an estimated \$3M per year.			
		Estimated Taxable Sales in Kennewick	\$ 300,000,000
		Estimated Annual Collection for TBD	\$ 3,000,000

Transportation Benefit District

Next Steps:

1. Hold a Public Hearing on the formation of the boundary for the Kennewick Transportation District.
2. November 19, 2024 Council adopts Ordinance creating the Kennewick Transportation Benefit District, setting boundary and approving 0.1% sales tax to fund transportation improvement projects.



QUESTIONS?

Council Agenda Coversheet 	Item Number: 6.b. Date: 11/5/2024 Item Type: Ordinance Subject: Ordinance: 2025 Property Tax Levy Department: Finance Ordinance #:	Category: Public Mtg / Hrg Ordinance/Reso
<u>Recommendation</u> Staff recommends City Council adopt the Ordinance as presented. <u>Motion for Consideration</u> Motion to adopt the ordinance as presented. <u>Summary</u> The attached ordinance establishes the City’s annual property tax levy for 2025. As discussed at the October 29, 2024 City Council workshop, the proposed 2025 levy ordinance is based on preliminary assessed valuation (AV) information provided by the Benton County Assessor on October 15, 2024, and results in a proposed 2025 levy of \$15,800,172, which would be an increase of \$448,140 from the prior year’s levy. Of this total increase, \$281,681 is attributable to new construction value added to the City’s tax rolls for the year and \$11,321 is attributable to one-time administrative refunds that the City is allowed to add to the 2025 levy for taxes that became uncollectible due to exemptions or cancelations that were approved after the 2024 levy was finalized. The remaining increase of \$155,138 is attributable to a 1% increase from the prior year’s (base) levy as authorized under state law. Based on information provided by the County Assessor’s Office on October 15th, the City’s assessed value increased by approximately \$481 million for the year to \$12.1 billion. This increase includes \$208 million in new construction value. Based on the proposed 2025 levy and current estimated AV, the proposed levy rate for 2025 would be \$1.31 per \$1,000 AV, or a reduction of approximately 1¢ per thousand of AV when compared to the prior year. For the owner of a \$300,000 home in Kennewick, assuming the home experienced the average 4.14% increase in AV for the year and applying the estimated levy rate of \$1.31 for 2025, the amount of property tax paid to the City would increase by \$10.24 in 2025, or approximately 85¢ per month. As is the case every year, staff will finalize the levy with the County in January 2025 based on the final AV amounts provided and the intent of this ordinance. <u>Alternatives</u> None recommended. Council could adopt the property tax levy ordinance without the 1% change to the base levy allowed under state law and initially approved by voters under Initiative 747. <u>Fiscal Impact</u> The 2025 property tax levy is estimated to generate a total of \$15,800,172 In revenue. Of this amount, \$67,000 would be allocated to the City’s Fire Pension Fund and an estimated \$713,000 would be allocated to the Capital Improvement Fund and be used for a portion of the debt service for the bonds issued as part of the City’s Local Revitalization Financing (LRF) program in Southridge as required by state law. The remaining \$15,020,172 would be allocated to the City’s General and Street Funds.		
<u>Attachments:</u> 1. Ordinance 2. Schedule I 3. Schedule II 4. Schedule III		

CITY OF KENNEWICK
ORDINANCE NO. 24-_____

AN ORDINANCE PROVIDING FOR A PROPERTY TAX LEVY IN THE
CITY OF KENNEWICK FOR THE YEAR 2025 IN ACCORD WITH STATE
LAW

WHEREAS, on October 29, 2024 the City Manager provided the City Council with updated information on the financial resources available in the 2025/2026 biennial budget; and

WHEREAS, the City Council and City Manager have considered the City's anticipated financial requirements for the remaining fiscal biennium and the ensuing year; and

WHEREAS, notice of a hearing on the proposed property tax levy was published and a public hearing was held at a regular meeting of the Kennewick City Council on the 5th day of November, 2024; and

WHEREAS, the City's actual general operating levy amount from the previous year, excluding the amount to be refunded under RCW 84.55.070, was \$15,352,032; and

WHEREAS, the population of the City is more than 10,000; NOW, THEREFORE,

THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. A tax for the following sums of money, or as much thereof as may be authorized by law, including all previously certified totals that may have been adjusted according to RCW 84.56.430, to defray the expenses and liabilities of the City of Kennewick, be, and the same is hereby levied for the purpose specified against all taxable property in the City for the fiscal year 2025 which includes a 1.0101% increase over the actual operating levy amount from the previous year:

General Operating Levy:

Base Levy	\$ 15,440,170
New Construction, State Utilities and Annexations	281,681*
Administration Refunds	11,321
Firemen's Pension Fund	<u>67,000</u>

TOTAL	\$15,800,172
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*Or at the final amount determined by the County Assessor.

Section 2. The Treasurer shall certify this ordinance to the Benton County Commissioners as required by RCW 84.52.020.

Section 3. This ordinance shall be in full force and effect five days from and after its passage, approval and publication as required by law.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, this 5th day of November, 2024, and signed in authentication of its passage this 5th day of November, 2024.

Attest:

GRETLE J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

ORDINANCE NO. 24-_____ filed and
recorded in the office of the City Clerk of
the City of Kennewick Washington, this
5th day of November, 2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk

DATE OF PUBLICATION:

ORDINANCE EFFECTIVE DATE:

PROPERTY TAX LEVY

2024 Tax Levy		\$15,352,032
1% Increase (over highest lawful levy since 1985)	\$15,513,805	155,138

Administrative Refunds (Provided by BC Treasurer)		11,321
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Additions:

New Construction *	\$207,660,560	275,058	
Increased Utility Values **	5,000,000	6,623	
	<u>212,660,560</u>		
x 2024 Tax Rate	<u>1.3246</u>		281,681

Annexation Calculation:

Total Regular Levy (base, 1% & new construction)	15,950,624	
Valuation of original district (w/o annexations)	<u>12,106,479,892</u>	
Rate to apply to Annexations	1.317528	
Annexations *	-	<u>0</u>

2025 Levy Amount	<u><u>\$15,800,172</u></u>
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Preliminary Taxable Value*:	<u><u>\$12,106,479,892</u></u>
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Property Tax Distribution		
	2025 <u>Levy</u>	2025 <u>Tax Rate</u>
Operating Levy:		
General Fund	\$15,020,172	\$1.2407
CIP Fund - LRF Program	713,000	0.0589
Fire Pension	<u>67,000</u>	<u>0.0055</u>
Total	<u><u>\$15,800,172</u></u>	<u><u>\$1.3051</u></u>

* Per Benton County Assessor on 10/15/2024.

** Estimated, to be adjusted by County Assessor with final amount.

2024 PROPERTY TAX RATES (Per \$1,000 Assessed Valuation)

	<u>Kennewick</u>
State - Schools Parts 1 & 2	\$ 2.2077
County	0.8136
City - Regular Levy	1.3246
Mid-Columbia Library District	0.2256
Kennewick School District (KSD) #17	3.0174
Kennewick Hospital	0.0809
Port of Kennewick	0.2044
Total	<u>\$ 7.8742</u>

Where does your tax dollar go?

School District
38¢

State
28¢

City
17¢

County
10¢

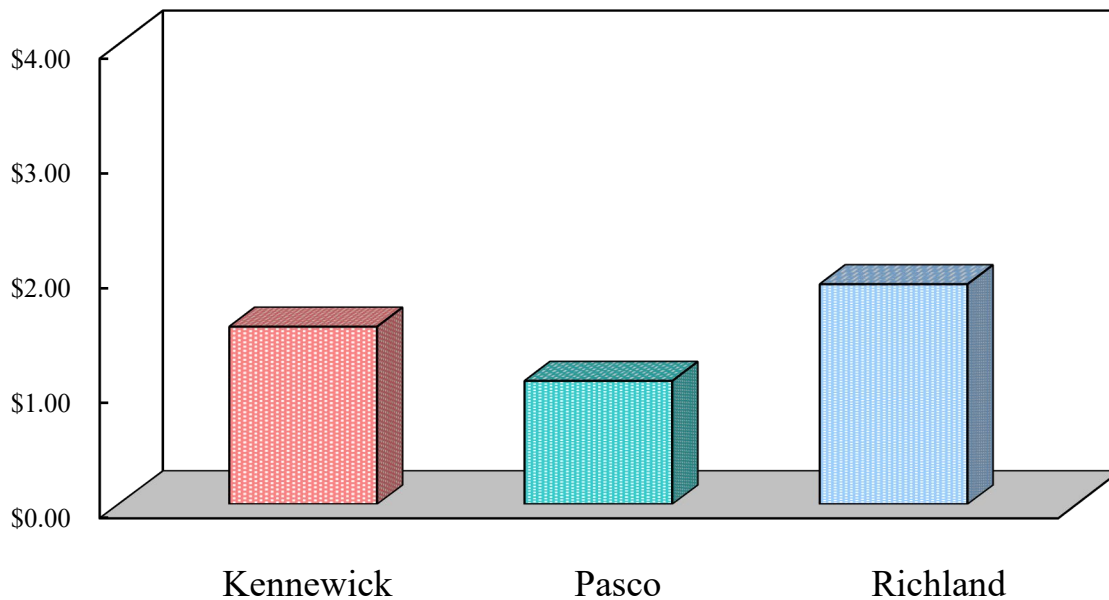
Library &
Other
7¢



COMPARATIVE PROPERTY TAX RATES
Tri-Cities 2024

	<u>Kennewick</u>	<u>Pasco</u>	<u>Richland</u>
Regular Levy	\$ 1.3246	\$ 1.0798	\$ 1.7804
Voted G.O. Bonds	0.0000	0.0000	0.1378
Library District	<u>0.2256</u>	<u>0.0000</u>	<u>0.0000</u>
Total Rate Per \$1,000	<u><u>\$ 1.5502</u></u>	<u><u>\$ 1.0798</u></u>	<u><u>\$ 1.9182</u></u>

Property Tax Rate
per \$1,000 of Assessed Valuation



Council Agenda Coversheet 	Item Number: 6.c. Date: 11/5/2024 Item Type: Public Hearing Subject: 2025/2026 Biennial Budget <i>(First Public Hearing; Second Public Hearing and Final Action is Scheduled on November 19).</i> Department: Finance	Category: Public Mtg / Hrg
<u>Recommendation</u> Not applicable <u>Motion for Consideration</u> Not applicable <u>Summary</u> The proposed 2025/2026 biennial budget was developed with Council's leadership in establishing clear goals and priorities as the foundation for its development. The budget was developed using the Budgeting by Priorities model, which provides a framework to evaluate and prioritize the City's available resources to the over 300 services provided to the community within the Council's priority areas of Community Safety, Economic Development, Infrastructure & Growth, Quality of Life and Responsible Government. Staff believes that the recommended budget provides a strategic plan for a sustainable operating and capital budget that meets Council's goals and objectives within each of the established priority areas. The process to develop the 2025/2026 budget has been extensive and began in May with a Council retreat where the City's priority areas, opportunity centers and goals were discussed and affirmed. In September, City Council was provided with an update on the major revenue and expenditure assumptions that were being utilized to prepare the proposed 2025/2026 biennial budget, as well as a projection of the resources that would be available for the upcoming biennium. In October, the 6-year (2025-2030) Capital Improvement Program was also reviewed and discussed. Finally, the budget process culminated with a presentation on the recommended 2025/2026 biennial budget at the October 29, 2024 workshop and the City Council received a copy of the preliminary budget document. The attached budget message, which was provided within the preliminary budget document, and attached presentation given to City Council on October 29th provides a comprehensive overview of the proposed 2025/2026 biennial budget and outlines the strategies to implement Council's goals associated with City's five priority areas. <u>Alternatives</u> Modify the budget to include or eliminate programs and corresponding resources. <u>Fiscal Impact</u> The total proposed 2025/2026 biennial budget is \$455.5 million for all funds, which includes the operating budget (General and Street Funds) of \$146 million. The proposed biennial budget is an 11% decrease (\$54 million) compared to the adjusted 2023/2024 biennial budget. The attached ordinance details the total biennial budget by fund.		
<u>Attachments:</u> 1. Message 2. Ordinance 3. Presentation		



City of Kennewick
Office of the City Manager

**BUDGET TRANSMITTAL
LETTER**

Date: October 29, 2024

To: Gretl Crawford, Honorable Mayor and Members of the City Council

From: Erin Erdman, City Manager

Subject: 2025/2026 Proposed Biennial Budget Executive Summary

The 2025/2026 Proposed Budget is balanced and allocates resources consistent with the needs of our growing community. The budget was developed in an environment of moderating inflation rates, tight labor markets, supply-chain issues, competing economic forecasts about the impacts of federal fiscal policy on the national economy, and many competing priorities for our limited resources. We continue to face the challenges of rising costs, including the impact of significant minimum wage increases in Washington State. These challenges have required us to develop strategic solutions so that we may continue to preserve and advance the community's quality of life.

The Proposed Budget is consistent with Council's Budgeting by Priorities model which has been used over the past several bienniums. This strategic planning effort provides a framework to align the City's resources and focus on the highest priority needs and expectations in the community. The biennial budget process began with a retreat in May where City Council reaffirmed the City's budgeting by priorities model and the five priority areas of Community Safety, Economic Development, Infrastructure and Growth, Quality of Life and Responsible Government.

The 2025/2026 Proposed Budget for your consideration totals \$455.5M. Major cost drivers include continued investments in critical transportation and utilities infrastructure; repair and replacement needs for Parks and Facilities; additional staff resources for the Fire Department and Utilities; technology enhancements, including those for public safety; support for economic development efforts; and contract commitments.

The proposed Operating Budget (General and Street Fund) is \$146M and represents 32% of the total budget. There were many challenges and uncertainties going into this budget period that had to be addressed. The base budgets, with an inflation factor, in the General and Street Funds

exceeded projected revenues by approximately \$5M. The city faces cost pressures which may not be easily controlled and driven by market forces such as labor, contractual obligations, as well as utility and fuel price increases. To maintain our priority programs and services, we are recommending strategic funding solutions for Council's consideration. We believe these funding alternatives will help set us up for success into the future.

Budget Highlights

The following are highlights of specific items in the 2025/2026 Proposed Budget:

- **Police Services:** Continue to ensure the safety of our community by maintaining current service levels while focusing on combatting criminal gang activity to achieve the commitments made to our community when they approved the public safety sales tax. We will continue to work with Benton County, and the other partner jurisdictions, to implement regional programs that are critical for the safety of our community. We are also committed to our partnership with the Kennewick School District and continuing to enhance school safety. Given budget challenges in the Operating Fund, the Proposed Budget recommends a strategic funding opportunity to maintain current service levels through the partial reallocation of the proceeds of the City's existing 6.5% water and sewer utility tax currently dedicated to pay for LEOFF 1 medical costs. Based on an evaluation, we believe a portion of these funds can be allocated to pay for public safety services in the Operating Fund.
- **Fire Department Strategic Plan:** The Proposed Budget continues to implement the goals of the strategic plan in the areas of Core Services, Staff Well Being, Effective Administration, Funding, and Community Engagement. Earlier this year, the City contracted with FCS Group to conduct an ambulance utility rate study. Based on this study, Council approved new ambulance utility rates on October 15, 2024 with an effective date beginning January 1, 2025. The new rate structure will maintain the current service level and enhance the City's ambulance emergency medical services delivery system by adding a peak hour unit beginning in 2025. The Proposed Budget also includes 6 FTE beginning in 2025 and recommends hiring 7 additional personnel in anticipation of opening a new Fire Station 6 in the Southridge Area.
- **Water and Sewer Utilities:** In preparation for providing a sustainable operating and capital budget for the biennium and into the future, a Water/Sewer Utility rate study update was conducted during the 2023/2024 biennium. The results of this study were shared with Council on October 22, 2024, and Council will consider the rate recommendations from the study at the November 5th Council meeting. The proposed rate adjustment will provide the resources to sustain operations for the upcoming biennium, maintain our existing infrastructure, replace priority infrastructure, while addressing expansion of our infrastructure to support our growing community. The Proposed Budget includes hiring 1 FTE Maintenance position in Water and 1 FTE Maintenance position in Sewer beginning in 2025.
- **Economic Development Efforts Supporting a Diverse and Vibrant Economy:** The Proposed Budget continues to support and promote economic development efforts and the City's Opportunity Centers including the Industrial Development Area, Three Rivers Convention Center (TRCC) Expansion Project, Vista Field, and Southridge.

- Three Rivers Convention Center (TRCC) Expansion: During the 2023/2024 biennium the City, Kennewick Public Facilities District (KPFDD), and A-1 Pearl continued working on a public-private partnership to bring the much-needed expansion to the TRCC. At the June 4, 2024 City Council meeting, City Council approved a Resolution authorizing approximately \$8M in funding for the design costs necessary to determine a maximum allowable construction cost, preliminary site work, and the procurement of long-lead items for the KPFDD's TRCC expansion project. It is anticipated the City will need to issue bonds to finance the design, construction, installation, and equipping of an expansion to the Convention Center. The project is currently estimated at \$71M, of which the majority would likely be financed by the KPFDD or the City of Kennewick, or some combination of the two. The Proposed 2025/2026 includes anticipated funding opportunities, including the potential for the utilization of Rural County Capital Funds and the use of Capital Improvement Program fund balance.
- Pavement Rating and Preservation: Our community and Council have identified pavement preservation as a priority which calls for a need for sustainable capital funding into the future. Historically, the Operating Fund has been contributing \$1M annually for pavement preservation. Due to the shortfall in the Operating Fund, the Proposed Budget includes implementation of a Transportation Benefit District (TBD) to continue to fund pavement preservation as discussed with Council during the September 24, 2024 Council Workshop. Staff is recommending a 0.1% sales tax option with an estimated annual collection of \$3M. If approved by Council in November 2024, the City would begin receiving TBD funds beginning in June 2025.
- Other Capital Improvement Projects: The following is a list of other priority projects that are included to receive funding in the Proposed Budget:
 - Major Street Projects
 - Kennewick Ave – Union to Morain
 - Keene Trail Extension Project (Steptoe to Center Parkway)
 - Arrowhead/Steptoe Traffic Signal
 - Bob Olson and Sherman Traffic Signal
 - Clodfelter & Ridgeline Traffic Signal
 - Quinault/CCB Intersection Improvements
 - Other Capital Projects
 - Lawrence Scott Playground Replacement
 - Splash Pad Replacement
 - Fleet Replacement
 - Technology Improvements
 - Deferred Maintenance Projects
- Maintain and Enhance Internal Infrastructure: The Proposed Budget continues to maintain and enhance our technology. To fund new software maintenance agreements, the Proposed Budget includes a partial reallocation of the Optional Sales Tax from the Capital Improvement Program Fund to the Operating Fund. The reallocation of these funds requires an amendment to the Resolution anticipated to go to Council for consideration on November 19, 2024.

- Recruit, Retain, Promote and Support our City Employees: We continue to face challenges attracting and hiring talented, qualified staff for critical positions. The City is working with a consultant on a Compensation and Classification Study anticipated to be completed in 2025. The goal of the study is to ensure internal equity and competitiveness with other organizations, including comparing the City's compensation and benefits with peer organizations and recommending adjustments where needed. This study will help ensure we remain a competitive employer and that we continue to attract and retain talented staff.

Summary and Acknowledgements

In summary, the 2025/2026 Proposed Budget is fiscally responsible and provides our community with creative means to deliver priority services. The Proposed Budget is designed to continue essential city services while addressing the City Council's priorities through the budgeting by priorities model. The budget has been crafted to provide a high level of essential city services to all Kennewick stakeholders. During the upcoming biennium, we will continue to review and consider strategies that will provide sustainability now and into the future.

I want to take this opportunity to thank all of the employees and Department Head team who contributed their time and effort to assist in the development of the 2025/2026 Proposed Budget. This was a challenging endeavor given the limited resources to be allocated to City-wide priorities. Our Department Head staff continue to implement innovative solutions for effective service delivery. This team has established the standard for continued innovation and creative solutions which made this year's budget process a huge success.

I would also like to thank the City Council for their leadership, guidance, and support. The Council's dedication to establishing strategic goals and priorities has provided the foundation for this budget. The policies you have established continue to support making Kennewick a financially stable and well-balanced community.

Respectfully,



Erin Erdman
City Manager

CITY OF KENNEWICK
ORDINANCE NO. 24-_____

AN ORDINANCE ADOPTING THE BIENNIAL BUDGET FOR THE YEARS
2025/2026

THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, DO ORDAIN AS
FOLLOWS:

Section 1. The biennial budget containing the total set forth for each fund for the years
2025/2026 is established as follows:

General Fund	\$ 140,090,728
Street Fund	<u>5,995,447</u>
Subtotal - Operating Budget	146,086,175
Transportation Benefit District Fund	6,000,000
BI-PIN Operations Fund	2,241,395
Community Development Fund	1,180,000
Asset Forfeiture Fund	256,900
Public Safety Fund	4,994,709
Cash Reserve Fund	3,345,000
Lodging Tax Fund	6,641,287
Criminal Justice Sales Tax Fund	9,673,605
HIDTA Fiduciary Program Fund	3,500,000
Coronavirus Fiscal Recovery Fund	2,118,970
Debt Service Fund	6,182,484
LID Guaranty Fund	47,900
Capital Improvement Fund	65,633,874
Urban Arterial Street Fund	7,542,671
Medical Services Fund	47,262,668
Building Safety Fund	7,800,000
Coliseum Fund	10,839,000
Stormwater Utility Fund	9,480,000
Columbia Park Golf Course Fund	1,025,000
Water and Sewer Fund	80,994,994
Equipment Rental Fund	16,491,322
Central Stores Fund	727,190
Risk Management Fund	7,286,605
Firemen's Pension Fund	1,590,000
OPEB Trust Fund	<u>6,579,044</u>
GRAND TOTAL	<u>\$455,520,793</u>

Section 2. This Ordinance shall be in full force and effect five (5) days from and after its passage, approval, and publication as required by law.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON this 19th day of November, 2024, and signed in authentication of its passage this 19th day of November, 2024.

Attest:

GRETLE J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

ORDINANCE NO. 24-_____ filed
and recorded in the office of the City
Clerk of the City of Kennewick
Washington, this 19th day of
November, 2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk

DATE OF PUBLICATION:

ORDINANCE EFFECTIVE DATE:



BIENNIAL BUDGET RECOMMENDATIONS

October 29, 2024
Kennewick City Council Workshop

Biennial Budget Preparation:

- **Council Retreat (*Formed the Foundation*):**
 - Reaffirmed the 5 Priority Areas & Program Areas
- **Overarching Goal** – Provide for a Sustainable Operating & Capital Budget for the Future
- **Budget Instructions & Preparation** – Summer/Fall
- **September 24th Council Workshop** – Budget Assumptions & Alternative Funding Sources
- **October 8th Council Workshop** – Capital Improvement Program
- **October 22nd Council Workshop** – Water / Sewer Utility Rates Discussion
- **2025/2026 Biennial Budget** – Maintains existing programs & sets forth the implementation plan for Council's goals while providing for future sustainability



PRIORITY AREAS



**Community
Safety**



**Economic
Development**



**Infrastructure
and Growth**



**Quality
of Life**



**Responsible
Government**

Biennial Recommendations:

- **Combat Criminal Gang Activity:**
 - Public Safety Sales Tax Commitments
 - Crime fighting strategies & deployment models
- **Continue to Enhance School Safety**
- **Strategic Funding to Maintain Current Service Level for Public Safety**
 - Partial reallocation of the proceeds of the City's existing 6.5% water and sewer utility tax
 - Funds are currently dedicated to pay for LEOFF I medical costs
 - Based on evaluation, staff believes a portion of these funds (\$588K) can be allocated to pay for Public Safety Services in the General Fund in 2025/2026
 - Requires Amendment to Resolution; To Council for Consideration on November 19th

COMMUNITY SAFETY



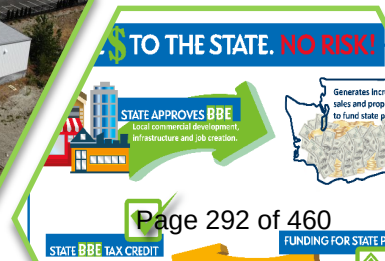
Biennial Recommendations:

- **Fire Department Strategic Plan:**
 - Continue to implement the goals of the strategic plan in the areas of Core Services, Staff Well Being, Effective Administration, Funding, Community Engagement
 - Maintain Current Level of Service for Ambulance Services
 - Enhance the Level of Service for the City's Ambulance Emergency Medical Services Delivery System by Adding a Peak Hour Unit Beginning in 2025; 6 FTE Beginning in 2025
 - Begin Hiring the Required Staff Needed to Operate a New Fire Station (Station 6) in the Southridge Area; 7 FTE in 2026.

- **Maintain the availability of safe drinking water:**
 - Implement Water/Sewer rate study recommendations
 - Water and Sewer renewals and replacements
 - PFAS Treatment System
 - 1 New Maintenance Position in Water Beginning 2025
 - 1 New Maintenance Position in Sewer Beginning 2025

Biennial Recommendations:

- Support and Promote the City's Industrial Development Area:
 - Extension of Utilities
 - Work with TRIDEC, Dept of Commerce and Developer to recruit businesses to the Industrial Area in South Kennewick
- Implement the Vision & Policies Established for the Opportunity Center:
 - Partner with the Kennewick Public Facilities District, A1 Pearl, & Benton County to expand the Convention Center, build a connecting hotel and enhance the amenities in the Entertainment District as well as support the private development in Vista Field
 - Work with property owners and developers on residential and commercial development in Southridge
- Seek Grant Opportunities and Support Legislative Efforts



Biennial Priorities:

INFRASTRUCTURE and GROWTH

- Strategic Funding & Implementation of a Sustainable Capital Facilities Plan
 - Pavement Rating & Preservation ~ \$3M per year
 - General Fund has been contributing \$1M annually for pavement preservation
 - Due to General Fund shortfall, recommend implementation of a Transportation Benefit District to continue to fund pavement preservation as discussed with Council during the September 24, 2024 council workshop
 - Recommend 0.1% Sales Tax Option
 - TBD can be approved by Council after conducting the required public hearing (RCW 36.73.050)
 - TBD boundaries can be the same as the City's boundaries
 - Estimated annual collections is \$3M
 - Increases in sales tax require timing consideration and notification to the Department of Revenue.
 - TBD Public Hearing Anticipated on November 5th with Council Consideration on November 19th



Biennial Priorities:

- Major Street Projects to include:
 - Kennewick Ave – Union to Morain
 - Keene Trail Extension Project (Steptoe to Center Parkway)
 - Arrowhead/Steptoe Traffic Signal
 - Bob Olson and Sherman Traffic Signal
 - Clodfelter & Ridgeline Traffic Signal
 - Quinault/CCB Intersection Improvements
- Other Major Capital Projects to include:
 - Three Rivers Convention Center Expansion Contribution
 - Lawrence Scott Playground Replacement
 - Splash Pad Replacement
- Fleet Replacement – police, fire, municipal services
- Technology Improvements
- Deferred Maintenance Projects

Biennial Recommendations:

- **Leverage Community Partnerships & Align Service Delivery**
 - Wildland/Urban interface mitigation plan – Zintel Canyon partnership & southern boundary
 - Housing & Homelessness – cross functional team partnership with Housing Authority, Benton County Human Services to implement and support the recovery center, mobile crisis response, co-responders, housing and homeless concerns to include the review of code modifications
 - Recreation Program Recommendations:
 - Special Events – continue to streamline the application process
 - Youth Sports – continue to implement youth sports programming
- **Prepare for Future Growth through Implementation of our Strategic Comprehensive Plan**
 - Community Planning Comprehensive Plan Update



Biennial Recommendations:

- Utilize Creativity and Flexibility in Program Delivery:
 - Cross-Functional Teams – (i.e. development review, encampment & mitigation, code enforcement)
- Maintain and Enhance Internal Infrastructure
 - Partial reallocation of the Optional Sales Tax from the Capital Improvement Fund to the General Fund to help pay for new software maintenance agreements (\$323K in 2025/2026); Requires amendment to Resolution anticipated to go to Council for consideration on November 19th
 - Complete implementation of the Records Management System (RMS) and Jail Management System (JMS) for BIPIN.
 - Complete implementation of the ERP Project
 - Ongoing updates to the City's network infrastructure equipment
- Enhance & Leverage Strong Community Partnerships for Effective Service Delivery:
 - Work with Partner Agencies
 - Public Outreach – citizen connect, decision engine, cleargov, language line, paperless court system
 - Budgeting by Priorities Model
- Recruit, Retain, Promote & Support our City Employees
 - Officer Health & Resiliency
 - Staff Wellbeing
 - Hire, Promote and Retain – (implement new programs – Careers in Gov, NeoGov, Spark Hire, Background Investigations, flexible workplace, contract negotiations & non-contract, other employee programs)





Major Revenue Assumptions

General & Street Funds

Major Revenue Assumptions

- Sales Tax – 3.7% growth in 2025 & 4% growth in 2026
 - Follows projected 1.25% *decrease* in 2024
 - Consistent with June 2024 State Economic Revenue Forecast
 - Reflects partial loss of sales tax revenue from large retail store in 2026
- Property Tax – 1% growth in base levy & \$200M in new construction each year (with 40% of growth in Southridge Local Revitalization Area)
- Utility Taxes:
 - Electric – 1.5% incr. each yr. (consumption) plus proj. public utility district rate increases
 - Telephone – 2% incr. each yr.
 - Cable – 1% incr. each yr. (3% rate growth, less 2% customer reduction)
 - Natural Gas - 1.5% incr. each yr. (customer growth) plus 2% rate incr.
 - Garbage – 1.5% incr. each yr. (customer growth) plus 2% CPI increases
 - Water/Sewer – 1.5% customer growth plus projected rate increases
 - Other – Generally estimate 1.5% customer growth (where applicable) and 4% for rates tied to CPI (where applicable)
- State Shared Revenues – No change to existing allocations

Other Governmental Funds

- Other Revenues – Generally 2% increases per year
- Real Estate Excise Tax (REET) – 3% growth per year
 - Follows decline of 23% in 2023 and projected decline of 3% in 2024
 - Assumes decline in borrowing rates will spur new development
 - Restricted funding source allocated to the capital improvement program
- Lodging Tax Revenue – 2% growth per year
 - Follows projected increase of 3.5% in 2024
 - Restricted funding source for tourism promotion and operation of city owned tourism facilities



Major Expenditure Assumptions



General & Street Funds

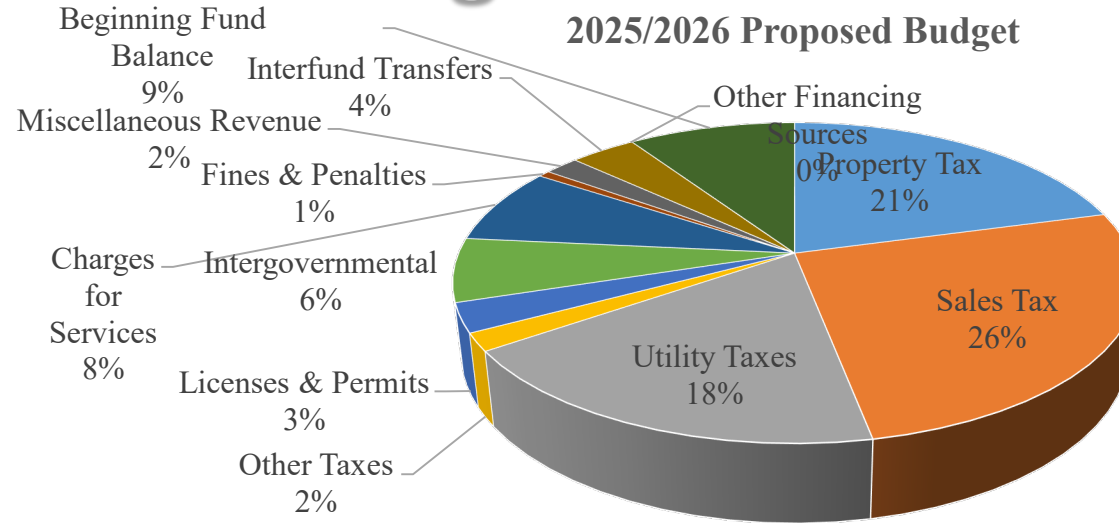
- Salaries & Wages – Per contract terms/projected terms
 - Allowance for Under-Expenditures of \$4.3M
- Medical Rates – 7-9% incr. in 2025 & 5% incr. 2026 with increases to employee paid premiums
- Retirement Rates - Per DRS projections
- Workers' Comp – Per L&I recommended rates for 2025
- Other Benefit Rates – 0% increase in 2025 and 5% increase in 2026
- Major Contract Assumptions:
 - Jail – Allocation of 12.86%; assumption 15% increase 2025 and 5% increase 2026
 - SeComm/BCES – assumption 2% increase in 2025 assessment & 5% increase in 2026
 - District Court – 20.35% allocation based on caseloads; assumption 12% increase 2025 and 5% increase 2026
 - OPD – 48.83% allocation based on caseloads, assumption 29% increase in 2025 and 5% increase for 2026

General & Street Funds

- Other Expenditures – 7.5% increase for the biennium for supplies and 5% increase for other services and charges (excludes certain major contracts)
- General Fund Proposed 2025/2026 Transfers

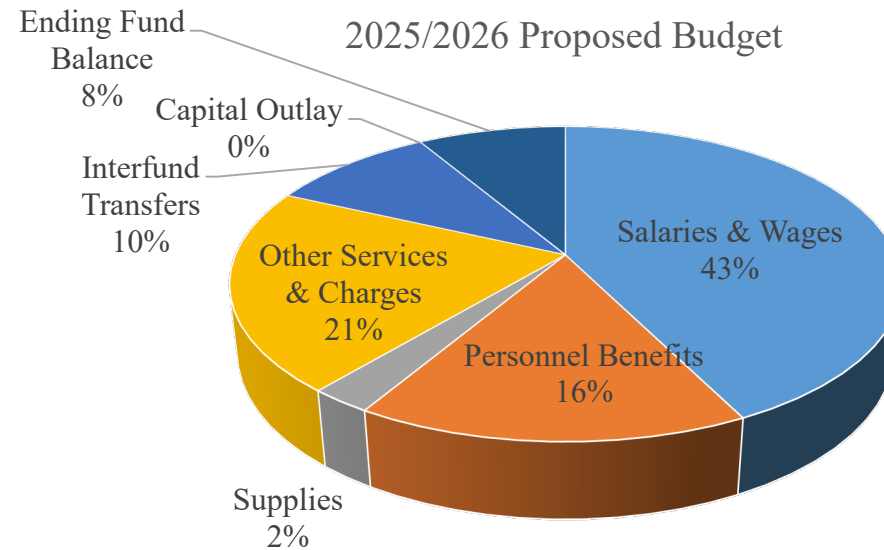
Fund Receiving Transfer from General Fund	Est. Transfer Amount for Biennium	Est. Transfers % of Total
Ambulance Utility Fund	\$10.12M	72%
Risk Management Fund	\$2.9M	21%
Street Fund	\$450K	3%
Coliseum Fund	\$400K	3%
Golf Course Fund	\$118K	1%
Total General Fund Transfers	\$14M	

Sources of Funding – General & Street Funds



Sources of Funding General & Street Funds	2021/2022	2023/2024	2025/2026	23/24 - 25/26	
	Actual	Adjusted Budget	Proposed Budget	\$ Change	% Change
Property Tax	\$27,558,943	\$28,969,702	\$30,374,000	\$1,404,298	5%
Sales Tax	33,824,812	36,180,500	38,213,408	2,032,908	6%
Utility Taxes	24,297,706	25,354,000	26,939,642	1,585,642	6%
Other Taxes	2,475,357	2,343,400	2,612,900	269,500	12%
Licenses & Permits	3,071,499	3,881,600	4,282,200	400,600	10%
Intergovernmental	10,876,577	10,780,023	9,388,900	(1,391,123)	-13%
Charges for Services	9,557,962	10,342,757	11,272,732	929,975	9%
Fines & Penalties	1,126,438	965,900	953,100	(12,800)	-1%
Miscellaneous Revenue	1,356,962	2,954,525	2,821,500	(133,025)	-5%
Interfund Transfers	4,637,570	4,956,750	5,444,694	487,944	10%
Other Financing Sources	-	-	-	-	
Subtotal Revenues:	118,783,827	126,729,157	132,303,076	5,573,919	4%
Beginning Fund Balance	5,966,211	13,311,301	13,783,099	471,798	4%
Total Sources	\$124,750,038	\$140,040,458	\$146,086,175	\$6,045,717	4%

Uses of Funding – General & Street Funds



	2021/2022	2023/2024	2025/2026	23/24 - 25/26	
Uses of Funding		Adjusted	Proposed		
General & Street Funds	Actual	Budget	Budget	\$ Change	% Change
Salaries & Wages	\$51,944,691	57,146,994	62,228,258	5,081,264	9%
Personnel Benefits	18,779,815	22,727,520	23,287,939	560,419	2%
Supplies	3,331,041	3,781,891	3,740,818	(41,074)	-1%
Other Services & Charges	22,653,060	27,211,850	30,392,752	3,180,902	12%
Interfund Transfers	14,437,104	16,191,000	14,000,565	(2,190,435)	-14%
Capital Outlay	293,026	37,900	-	(37,900)	-100%
Subtotal Appropriations:	111,438,737	127,097,155	133,650,331	6,553,176	5%
Ending Fund Balance	13,311,301	12,943,303	12,435,844	(507,459)	-4%
Total Uses:	\$124,750,038	\$140,040,458	\$146,086,175	\$6,045,717	4%

General & Street Funds One-Time Uses

- Comprehensive Plan Update \$500K
- Transfer from General Fund to Street Fund \$450K
- Community Events \$396K
- Golf Course Improvements \$78K

2025/2026 Proposed Budget

CITY OF KENNEWICK COMPARATIVE BUDGET SUMMARY

FUND	ACTUAL 2021/2022	ADJUSTED BUDGET 2023/2024	PROPOSED BUDGET 2025/2026	VARIANCE
OPERATING (GENERAL & STREET)	\$ 124,750,038	\$ 140,040,458	\$ 146,086,175	4%
CAPITAL PROJECTS	68,753,358	86,992,332	73,176,545	-16%
ENTERPRISE & INTERNAL SERVICE				
Water & Sewer	83,740,715	123,045,103	80,994,994	-34%
Building Safety	6,887,606	7,147,686	7,800,000	9%
Medical Services	37,291,757	41,353,317	47,262,668	14%
Coliseum Fund	9,720,281	10,815,944	10,839,000	0%
Stormwater	7,134,839	8,023,617	9,480,000	18%
Columbia Park Golf Course	979,914	993,195	1,025,000	3%
Equipment Rental	13,244,522	26,120,078	16,491,322	-37%
Risk Management	5,877,334	8,354,425	7,286,605	-13%
Central Stores	740,479	697,519	727,190	4%
Subtotal	165,617,447	226,550,884	181,906,779	-20%
DEBT SERVICE	8,233,662	7,542,112	6,230,384	-17%
SPECIAL REVENUE				
Transportation Benefit District Fund*	-	-	6,000,000	
Arterial Street Fund**	5,207,517	8,000,000		
BI-PIN Operations	1,586,339	2,088,746	2,241,395	7%
Community Development	1,655,474	2,548,427	1,180,000	-54%
Asset Forfeiture Fund	248,967	248,952	256,900	3%
Public Safety	4,637,570	4,956,750	4,994,709	1%
Cash Reserve Fund	3,214,006	3,474,006	3,345,000	-4%
Lodging Tax Fund	4,107,876	5,667,449	6,641,287	17%
Criminal Justice Sales Tax	7,716,796	8,804,156	9,673,605	10%
HIDTA Program	4,240,533	4,000,000	3,500,000	-13%
Coronavirus Fiscal Recovery	726,594	1,121,034	2,118,970	89%
Subtotal	33,341,671	40,909,520	39,951,866	-2%
FIDUCIARY TRUST FUNDS	6,883,475	7,668,660	8,169,044	7%
TOTAL	\$ 407,579,651	\$ 509,703,966	\$ 455,520,793	-11%

*Pending City Council Approval

**Removed and Replaced with Proposed TBD in 2025/2026

Potential Budget Vulnerabilities

- Economic slowdown
- Risks of persistent inflation
 - Labor shortages and increases to minimum wage
 - Impact of market volatility on consumerism
- 2025 Washington State Legislative Session
 - Will Include adoption of State's 2025-2027 budget
- Succession Planning and Retirements



THANK YOU

10.29.2024

Council Agenda Coversheet	Item Number: 6.d. Date: 11/5/2024 Item Type: Public Hearing Subject: Resolution: Preliminary Latecomers Reimbursement Agreement for S Colorado Street Sewer Department: Public Works Resolution #: Project #: P2211	Category: Public Mtg / Hrg
		
<u>Recommendation</u> Staff recommends the City Council adopt the resolution as presented and authorize the City Manager to sign the Preliminary Latecomers Reimbursement Agreement for S Colorado Street Sewer. <u>Motion for Consideration</u> Motion to adopt the resolution as presented and authorize the City Manager to sign the Preliminary Latecomers Reimbursement Agreement for S Colorado Street Sewer. <u>Summary</u> As part of the Light Industrial Area (LIA) Utilities Extension project (P2211), the City will be constructing a sewer main in S Colorado Street. The properties fronting S Colorado Street will potentially benefit from the sewer infrastructure being constructed. Per KMC 5.60.030, latecomers for utility related improvements (sanitary sewer, water, and storm) can be 20-years in duration. If the parcels listed in Exhibit A connect to this sewer within the 20-year period, following approval of a final latecomer's agreement, they will be required to pay for their pro rata share as shown in Exhibit B, with amounts to be finalized upon completion of construction when final costs are known. Reimbursement from the parcels listed in Exhibit A will be required at the time of permitting to develop any portion of their property that requires connection to city sewer, or as required to construct as part of plat conditions, or use of the sewer main constructed by the City. This is a Preliminary Latecomers Reimbursement Agreement based on the Engineer's estimate; a Final Latecomers Reimbursement Agreement will be brought to council after the project is complete and actual construction costs are known. <u>Alternatives</u> If the Council does not approve this preliminary agreement, the City could move forward with the project, but would not be able to recoup the proposed portion of the costs. <u>Fiscal Impact</u> If sewer connections are made by the parties identified in Exhibit A and reimbursement fees are collected, a 10% administrative fee will also be retained by the City.		
<u>Attachments:</u> 1. Memo 2. Presentation 3. Resolution 4. LRA Agreement 5. LRA Exhibit A 6. LRA Exhibit B		



Leading the Way

MEMORANDUM

Public Works Department

Date: October 31, 2024
To: Kennewick City Council
From: Jeremy Lustig, PE, Deputy Public Works Director
Subject: **S Colorado Street Sewer Preliminary Latecomers Reimbursement Agreement**

Project Description

The City is constructing a sewer main in S. Colorado Street as part of the Light Industrial Area Utilities Extension project to support the area south of Interstate 82.

Assessment Reimbursement Area and Benefits

The properties fronting to S. Colorado Street are potential beneficiaries of the City's construction of the sewer main and are subject to pro rata cost shares as shown on Exhibits A and B.

Additional Eligible Costs

Additional eligible costs include the latecomer fee of \$360 per parcel, the utility fee of \$880 per utility (sewer only), the 10% Latecomers Administrative Fee (per KMC 5.6), survey and as built drawing cost.

Term and Timing of Reimbursements

Per KMC 5.60.030, latecomers can be for 20 years for utility improvements (sanitary sewer, water and storm drain).

If the parcels listed in Exhibit A develop within the 20-year period, following approval of a final latecomer's reimbursement agreement, they will be required to pay for their estimated shares shown in exhibit B, with amounts finalized following completion of construction.

Reimbursement from the parcels listed in Exhibit A will be required at the time of permitting to develop any portion of their property that requires connection to city sewer, or as required to construct as part of plat conditions, or use of the sanitary sewer main constructed by the City.

PUBLIC WORKS

1010 E. Chemical Drive • PO Box 6108 • Kennewick, WA 99336-0108
(509) 585-4413 • Fax (509) 585-4451 • Jeremy.Lustig@ci.kennewick.wa.us

Preliminary Latecomers Agreement

Colorado Street Sewer Extension

for LIA Utility Extension (P2211) Project

City Council – November 5, 2024

Jeremy Lustig, P.E., Deputy Public Works Director



Preliminary Latecomers Agreement

☐ Preliminary Reimbursement Amount

- ☐ *This Latecomer Agreement would require reimbursement should the parties connect in the next 20-years.*
- ☐ *Total estimated construction costs, including tax and administrative fees, is estimated to be \$479,936.00 (based on 8" "developer required size").*
- ☐ *The value of the reimbursement by the parties to the preliminary agreement is based on linear feet of property frontage as shown on Exhibit B of the Agreement.*
- ☐ *The final reimbursement amount will be based on actual construction costs and brought to council for adoption.*



Preliminary Latecomers Agreement

Proposed Sewer Infrastructure

- KMC 5.60 allows for Latecomer Agreements for the installation of water, sewer, storm, and street infrastructure.
- The City's LIA Utility Extension (P2211) project includes the construction of 2,237 feet of sewer system in the future extension of S Colorado Street.
- 5 Properties owned by two developers could benefit from connecting to sewer.



Preliminary Latecomers Agreement

Parcel Property Owners

ASSESSMENT AREA	PARCEL # LEGAL DESCRIPTION	PROPERTY OWNER(S)
PARCEL A	#117892000001017	Matt Smith
	See legal description Page 2	Tri Cities Development Company, LLC
PARCEL B	#117892090001000	Matt Smith
	See legal description Page 2	Tri Cities Development Company, LLC
PARCEL C	#117892090002000	Matt Smith
	See legal description Page 2	Tri Cities Development Company, LLC
PARCEL D	#118891000001008	Marcus Fullard-Leo
	See legal description Pages 2 & 3	Jaycee Structure, LLC
PARCEL E	#118891090001010	Marcus Fullard-Leo
	See legal description Pages 3 - 5	Jaycee Structure, LLC



Preliminary Latecomers Agreement

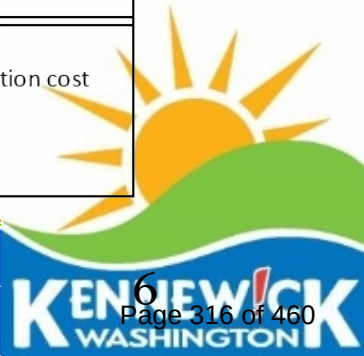
Preliminary Sewer Cost

		SCHEDULE OF VALUES			
NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
1	Mobilization (33% of total project cost)	1	LS	\$244,000	\$80,520
2	SPCC Plan (33% of total project cost)	1	LS	\$2,000	\$660
3	Construction Surveying (33% of total project cost)	1	LS	\$15,000	\$4,950
4	Shoring and Trench Safety Systems (33% of total project cost)	1	LS	\$24,000	\$7,920
5	As-Built Drawings (33% of total project cost)	1	LS	\$4,000	\$1,320
6	SDR35 PVC Sanitary Sewer Pipe 8* In. Diam.	2,237	LF	\$85	\$190,145
7	Manhole 48 In. Diam. Type 1	7	EA	\$8,000	\$56,000
8	Connect to Existing Manhole	1	EA	\$2,000	\$1,500
9	Roadway Grading***	5,173	CY	\$10	\$51,730
10	Site Restoration (33% of total project cost)	1	LS	\$3,960	\$3,960
11	Latecomers Fees (per KMC 5.60**)	1	LS	\$2,680	\$2,680
	SUBTOTAL				\$401,385
	BENTON COUNTY SALES TAX			8.7%	\$34,920
	SUBTOTAL				\$436,305
	Latecomers Administrative Fee (per KMC 5.60)			10%	\$43,631
	TOTAL ESTIMATED COSTS				\$479,936
*Actual pipe size to be installed will be 12", ** fees adjusted based on ENR CCI as required by KMC *** No 9 Roadway Grading costs only apply to the Matt Smith's Latecomer Agreement for parcels A, B, & C					

Preliminary Latecomers Agreement

Preliminary Allocation of Cost

ASSESSMENT AREA	PARCEL # LEGAL DESCRIPTION	PROPERTY OWNER(S)	FUTURE ASSESSMENT
PARCEL A	#117892000001017	Matt Smith	Latecomer Assessment **
	See legal description Page 2	Tri Cities Development Company, LLC	\$98,815.43
PARCEL B	#117892090001000	Matt Smith	Latecomer Assessment **
	See legal description Page 2	Tri Cities Development Company, LLC	\$104,870.30
PARCEL C	#117892090002000	Matt Smith	Latecomer Assessment **
	See legal description Page 2	Tri Cities Development Company, LLC	\$67,209.03
Total Latecomer Assessment for Parcels A, B, & C			\$270,894.76
PARCEL D	#118891000001008	Marcus Fullard-Leo	Latecomer Assessment **
	See legal description Pages 2 & 3	Jaycee Structure, LLC	\$181,754.68
PARCEL E	#118891090001010	Marcus Fullard-Leo	Latecomer Assessment **
	See legal description Pages 3 - 5	Jaycee Structure, LLC	\$27,286.56
Total Latecomer Assessment for Parcels D & E			\$209,041.24
* Estimated construction cost include an 8" sewer main (developer size required). Actual size will be 12" sewer. Estimated construction cost includes roadway grading which only applies to Matt Smith's properties, parcels A, B, & C. ** Preliminary assessment of Latecomer share to be paid in the future if parcels are developed per KMC 5.60.			



Preliminary Latecomers Agreement

Questions?



CITY OF KENNEWICK
RESOLUTION NO. 24-_____

A RESOLUTION APPROVING A CITY-INITIATED PRELIMINARY
LATECOMERS REIMBURSEMENT AGREEMENT FOR S COLORADO STREET
SEWER

WHEREAS, The City of Kennewick has requested to enter into a City-initiated Latecomers Reimbursement Agreement for the construction of sanitary sewer facilities along the southern extension of South Colorado St.; and

WHEREAS, Kennewick Municipal Code (KMC) 5.60 provides for the potential reimbursement of costs for utilities that could benefit other nearby properties; and

WHEREAS, on November 5, 2024, in accordance with KMC 5.60.070(6) a minimum of twenty (20) days in advance of the public hearing held on this date, the preliminary determination of area boundaries and assessments, along with a description of the property owners' rights was forwarded by certified mail to the property owners of record as shown on the records of the Benton County Assessor within the proposed assessment area; and

WHEREAS, notice was published on October 25, 2024 that a public hearing would be held on this date concerning the latecomers agreement; and

WHEREAS, on this date City Council held a public hearing; NOW, THEREFORE,

BE IT HEREBY RESOLVED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, AS FOLLOWS:

Section 1. The properties listed in Exhibit A shall be subject to this Preliminary Latecomers Reimbursement Agreement as assessed, and total estimated costs listed in Exhibit B.

Section 2. The City Manager is authorized to sign the City initiated Preliminary Latecomers Reimbursement Agreement.

Section 3. The construction of utilities along future S. Colorado Street has been approved for construction.

Section 4. The preliminary assessments for the costs of such improvements are approved.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, this 5th day of November, 2024, and signed in authentication of its passage this 5th day of November, 2024.

Attest:

GRETLE J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

RESOLUTION NO. 24-_____ filed and
recorded in the office of the City Clerk of
the City of Kennewick Washington, this
6th day of November, 2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk

Preliminary Latecomers Reimbursement Agreement
KMC 5.60
Facility Contract

Water or sanitary sewer or storm drainage, or collector or arterial street

THIS AGREEMENT entered into this date by and between the City of Kennewick, Washington hereinafter called "City," and the property owners listed on Exhibit A, here after called "Owner".

WHEREAS, the Owners and the City wish to enter into this Preliminary Latecomers Reimbursement Agreement providing for the installation of the improvements by the City and providing a preliminary reimbursement calculation for Owners to reimburse the City upon connection, or where required as a plat condition, with said improvements after completion of construction; and

WHEREAS, the City has, by Resolution 24-____, adopted by the City Council on the 5th day of November, 2024, approved the reimbursement agreement for the construction of the sewer extension in South Colorado Street by the City in support of the City's LIA Utility Extension (P2211) project and established a preliminary assessment reimbursement area and preliminary pro rata share of costs; NOW THEREFORE,

NOW THEREFORE in consideration of the mutual promises made herein, IT IS AGREED AS FOLLOWS:

1. The City will construct, at their expense, the sewer extension in future South Colorado Street as per construction plans approved by the City. The sewer extension will provide sewer service to the parcels adjacent to future South Colorado Street and the Light Industrial Area (LIA) south of Interstate Route 82 as shown in Exhibit A, which is attached hereto and incorporated herein by reference. Said facility to be constructed in accordance with the City Standard Specifications and Drawings in effect governing the construction and specifications for facilities of such type, and subject to the approval of the City Engineer or approved agent.
2. It is the intent of this City initiated Preliminary Latecomers Reimbursement Agreement, that for a period of twenty (20) years from the date of the City Council's adoption of the Final Latecomers Reimbursement Agreement, that any person, firm, or corporation owning real estate within the assessment area and not contributing to the original cost of such facility, who subsequently connects into city sewer, or as required to construct as part of plat conditions, or uses the same, shall pay a fair pro rata share of the cost of construction of said facility in accordance with the schedule and reimbursement area map set forth in Exhibit B.
3. Upon completion of construction of the extension and its acceptance by the City Engineer, the facility shall become a part of the municipal system of the City. Maintenance and operation costs of said facilities after acceptance shall be borne by

the City, except for work and corrections covered by the contractor's one-year warranty bond.

4. It is the intent of this Preliminary Latecomers Reimbursement Agreement that following completion of construction and passage of a Final Latecomers Reimbursement Agreement, by the City Council, that no person, firm, or corporation shall be granted a permit or be authorized by the City to connect into or use any such facility, or extensions thereof, during the period of time prescribed in Paragraph (2) of this contract without first paying to the City, in addition to any and all other costs and charges made and assessed for such connection or use, the amount required by the provisions of the contract under which the facility so connected onto or used or constructed, as set forth in Exhibit B. All amounts so received by the municipality, plus a handling, processing and administration fee equal to ten percent (10%) of the reimbursement collected, shall be remitted to the City. After expiration of this time prescribed in Paragraph 2 of the contract, City standard fees in effect at the time will apply.
5. It is the intent of this Preliminary Latecomers Reimbursement Agreement that following passage of the Final Latecomers Reimbursement Agreement by City Council, whenever any connection is made onto the facility described in Paragraph (1) under this contract without such payment having first been made in accordance with Exhibit A, the City may remove or cause to be removed, such unauthorized connection and all connecting lines or pipe located in the facility right-of-way, and dispose of such material removed without any liability whatsoever.
6. Owner(s) agree to pay to the City a handling, processing, and administrative fee of ten percent (10%) of all reimbursements collected by the City as reflected in the cost estimate.
7. Owner(s) release and waive any claims for any liability of the City, its officials, agents, and employees in the establishment and enforcement of the Preliminary and Final Latecomers Reimbursement Agreement.

DATED at City of Kennewick, Washington, this ____ day of _____, 20 ____.

Developer/Owner(s)

Address

Developer/Owner(s)

Address

City Manager

EXHIBIT A

COLORADO STREET SEWER LATECOMER AGREEMENT MAP

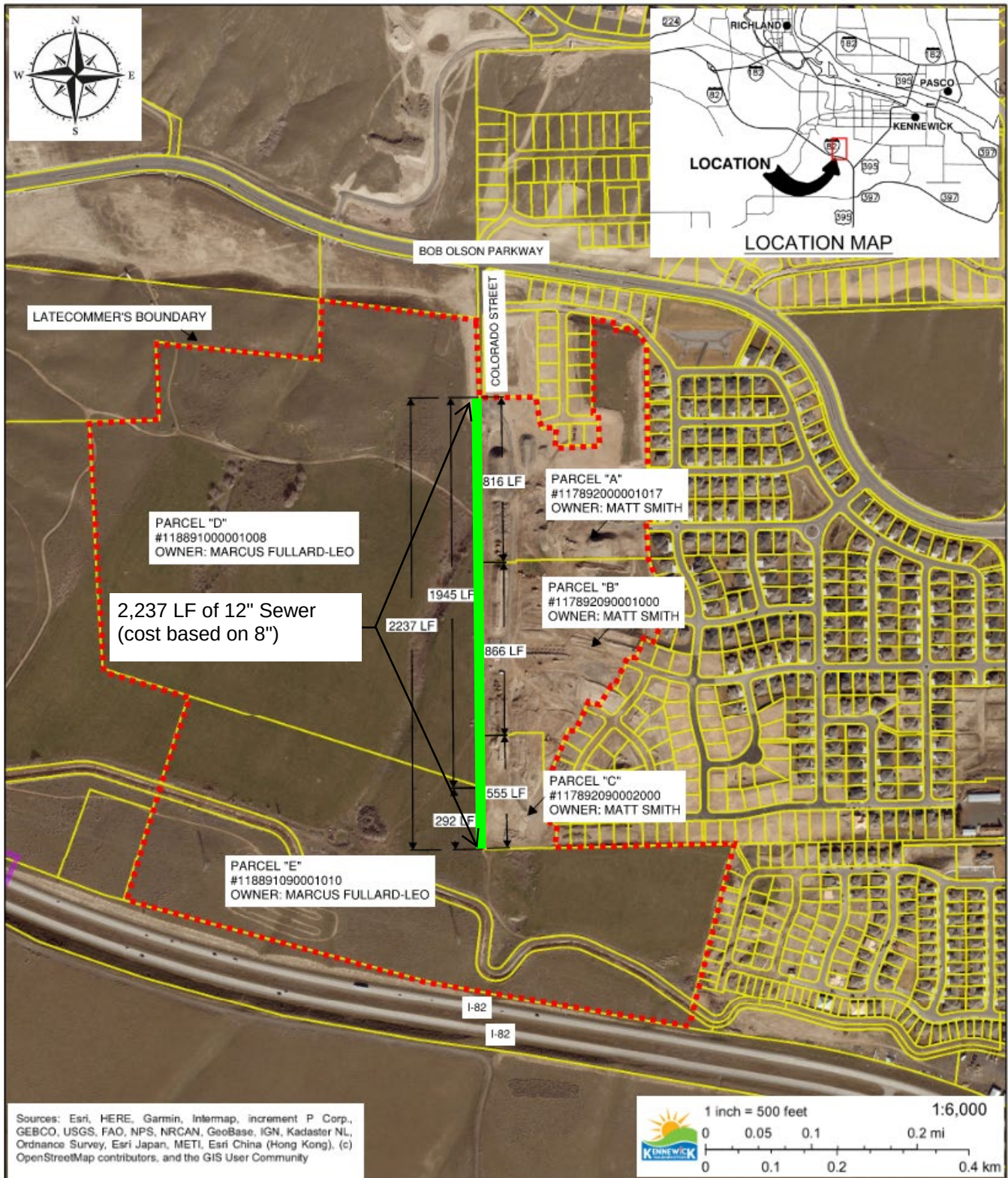


EXHIBIT A

Colorado Street Sewer Latecomer Agreement

City of Kennewick		
ASSESSMENT AREA	PARCEL # LEGAL DESCRIPTION	PROPERTY OWNER(S)
PARCEL A	#117892000001017	Matt Smith
	See legal description Page 2	Tri Cities Development Company, LLC
PARCEL B	#117892090001000	Matt Smith
	See legal description Page 2	Tri Cities Development Company, LLC
PARCEL C	#117892090002000	Matt Smith
	See legal description Page 2	Tri Cities Development Company, LLC
PARCEL D	#118891000001008	Marcus Fullard-Leo
	See legal description Pages 2 & 3	Jaycee Structure, LLC
PARCEL E	#118891090001010	Marcus Fullard-Leo
	See legal description Pages 3 - 5	Jaycee Structure, LLC

EXHIBIT A

PARCEL A (#117892000001017) – LEGAL DESCRIPTION

TRACT SS, APPLE VALLEY PHASE 7A AS RECORDED IN VOLUME 15 OF PLATS, PAGE 0775, AUDITOR FILE NUMBER 2024-016222, RECORDS OF BENTON COUNTY, WASHINGTON

PARCEL B (#117892090001000) – LEGAL DESCRIPTION

APPLE VALLEY PHASE 6B, TRACT NN. RECORDED IN VOLUME 15 OF PLATS AT PAGE 0767, RECORDS OF BENTON COUNTY, WASHINGTON. AF#2024-000766, 01/12/2024

PARCEL C (#117892090002000) – LEGAL DESCRIPTION

APPLE VALLEY PHASE 6B, TRACT OO. RECORDED IN VOLUME 15 OF PLATS AT PAGE 0767, RECORDS OF BENTON COUNTY, WASHINGTON. AF#2024-000766, 01/12/2024.

PARCEL D (#118891000001008) – LEGAL DESCRIPTION

THAT PORTION OF THE FOLLOWING LEGAL DESCRIPTION THAT IS IN TAX CODE AREA K24: REAL PROPERTY LOCATED IN THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 7 AND THE NORTHEAST QUARTER OF SECTION 18, TOWNSHIP 8 NORTH, RANGE 29 EAST OF THE WILLAMETTE MERIDIAN, CITY OF KENNEWICK, BENTON COUNTY, WASHINGTON; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 7, SAID CORNER BEING THE TRUE POINT OF BEGINNING; THENCE SOUTH 00°41'22" EAST ALONG THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 18 A DISTANCE OF 2,343.86 FEET TO A POINT THAT LIES NORTH 00°41'22" WEST A DISTANCE OF 302.06 FEET FROM THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 18; THENCE NORTH 72°32'03" WEST A DISTANCE OF 1,992.38 FEET; THENCE NORTH 03°55'13" WEST A DISTANCE OF 400.09 FEET; THENCE NORTH 02°48'36" WEST A DISTANCE OF 805.57 FEET TO A POINT OF CURVATURE WITH A TANGENT CURVE TURNING TO THE LEFT, HAVING A RADIUS OF 1500.00 FEET; THENCE ALONG SAID CURVE, HAVING AN ARC LENGTH OF 34.32 FEET TO A NON-TANGENT LINE; THENCE NORTH 89°25'47" EAST A DISTANCE OF 351.31 FEET; THENCE NORTH 02°48'35" WEST A DISTANCE OF 387.93 FEET; THENCE SOUTH 83°25'56" EAST A DISTANCE OF 823.22 FEET; THENCE NORTH 00°41'08" WEST A DISTANCE OF 302.42 FEET TO THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 18; THENCE SOUTH 83°25'26" EAST ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 18 A DISTANCE OF 8.14 FEET; THENCE NORTH 00°21'54" WEST A DISTANCE OF 338.76 FEET TO A POINT ON THE ARC OF A NON TANGENT CURVE TURNING TO THE LEFT, HAVING A RADIUS OF 2537.00 FEET, SAID POINT ALSO BEING A POINT ON THE SOUTHERLY RIGHT OF WAY DEEDED TO THE CITY OF KENNEWICK BY QUIT CLAIM DEED RECORDED UNDER AUDITOR'S FILE NUMBER 2011-036131, RECORDS OF THE BENTON COUNTY AUDITOR; THE RADIUS POINT OF WHICH BEARS NORTH 19°40'38" EAST; THENCE ALONG SAID CURVE AND RIGHT OF WAY, HAVING AN ARC

EXHIBIT A

LENGTH OF 490.90 FEET WITH A DELTA ANGLE OF 11°05'11", A CHORD BEARING OF SOUTH 75°51'58" EAST, AND A CHORD LENGTH OF 490.13 FEET TO A TANGENT LINE; THENCE SOUTH 81°24'33" EAST A DISTANCE OF 315.65 FEET TO THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 7; THENCE SOUTH 00°18'37" EAST ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 7 A DISTANCE OF 262.50 FEET TO THE TRUE POINT OF BEGINNING. (BOUNDARY LINE ADJUSTMENT PER AF#2018-009092, 04/02/2018) [LINKED WITH SALES RESTRICTION TO PARCEL 1-1889-100-0001-009 THAT IS IN TAX CODE AREA K1 RA1]

PARCEL E (#118891090001010) – LEGAL DESCRIPTION

A PARCEL OF LAND WITHIN THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 18 AND THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 17, ALL IN TOWNSHIP 8 NORTH, RANGE 29 EAST, W.M., BEING A PORTION OF LOT 7 OF THAT BINDING SITE PLAN RECORDED IN VOLUME 1 OF THE BENTON COUNTY BOOK OF SURVEYS AT PAGE 4549, AND FILED UNDER AUDITOR'S FILE NUMBER 2014-032334, AND THAT PORTION OF PARCEL E AS DESCRIBED AT BENTON COUNTY AUDITOR'S FILE NO. 2015-007804, AND THAT PORTION OF PARCEL E AS DESCRIBED AT BENTON COUNTY AUDITOR'S FILE NO. 2015-019471, AND DESCRIBED MORE PARTICULARLY AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 17, BEING THE TRUE POINT OF BEGINNING; THENCE NORTH 88°56'06" EAST ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER OF SECTION 17 A DISTANCE OF 1243.75 FEET TO THE NORTHEAST CORNER OF THAT PARCEL DESCRIBED IN THAT QUIT CLAIM DEED RECORDED AT BENTON COUNTY AUDITOR'S FILE NO. 2015-019471; THENCE SOUTH 14°35'40" WEST ALONG THE EAST LINE OF SAID PARCEL DESCRIBED AT AUDITOR'S FILE NO. 2015-019471 A DISTANCE OF 815.22 FEET TO THE SOUTHEAST CORNER THEREOF, SAID POINT BEING ON THE NORTH RIGHT OF WAY LINE OF THE KENNEWICK IRRIGATION CO. CANAL; THENCE ALONG SAID NORTH LINE OF THE CANAL RIGHT OF WAY AS FOLLOWS: THENCE NORTH 54°01'30" WEST A DISTANCE OF 236.79 FEET; THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 112.13 FEET, WITH A RADIUS OF 608.00 FEET, WITH A CHORD BEARING OF NORTH 59°18'30" WEST, WITH A CHORD LENGTH OF 111.97 FEET; THENCE NORTH 64°35'30" WEST A DISTANCE OF 235.10 FEET; THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 183.30 FEET, WITH A RADIUS OF 321.50 FEET, WITH A CHORD BEARING OF NORTH 80°55'30" WEST, WITH A CHORD LENGTH OF 180.83 FEET; THENCE SOUTH 82°44'30" WEST A DISTANCE OF 106.50 FEET; THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 114.19 FEET, WITH A RADIUS OF 149.60 FEET, WITH A CHORD BEARING OF SOUTH 60°52'30" WEST, WITH A CHORD LENGTH OF 111.44 FEET; THENCE SOUTH 39°00'30" WEST A DISTANCE OF 100.44 FEET; THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 51.42 FEET, WITH A RADIUS OF 46.36 FEET, WITH A CHORD BEARING OF SOUTH 70°41'53" WEST, WITH A CHORD LENGTH OF 48.83 FEET; THENCE NORTH 86°24'05" WEST A DISTANCE OF 1.07 FEET; THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 51.38 FEET, WITH A RADIUS OF 34.90 FEET, WITH A CHORD BEARING OF NORTH 35°42'35" WEST, WITH A CHORD

EXHIBIT A

LENGTH OF 46.86 FEET; THENCE NORTH 6°27'47" EAST A DISTANCE OF 172.00 FEET; THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 125.60 FEET, WITH A RADIUS OF 130.50 FEET, WITH A CHORD BEARING OF NORTH 21°06'37" WEST, WITH A CHORD LENGTH OF 120.81 FEET, TO A POINT ON THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 17; THENCE SOUTH 1°08'28" WEST ALONG SAID WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 17 A DISTANCE OF 355.88 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF THE KENNEWICK IRRIGATION DISTRICT CANAL; THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 22.27 FEET, WITH A RADIUS OF 94.90 FEET, WITH A CHORD BEARING OF SOUTH 52°43'36" EAST, WITH A CHORD LENGTH OF 22.22 FEET; THENCE WITH A COMPOUND CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 149.09 FEET, WITH A RADIUS OF 106.39 FEET, WITH A CHORD BEARING OF NORTH 79°06'05" EAST, WITH A CHORD LENGTH OF 137.19 FEET; THENCE NORTH 39°00'30" EAST A DISTANCE OF 100.40 FEET; THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 68.39 FEET, WITH A RADIUS OF 89.60 FEET, WITH A CHORD BEARING OF NORTH 60°52'30" EAST, WITH A CHORD LENGTH OF 66.74 FEET; THENCE NORTH 82°44'30" EAST A DISTANCE OF 106.50 FEET; THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 149.09 FEET, WITH A RADIUS OF 261.50 FEET, WITH A CHORD BEARING OF SOUTH 80°55'30" EAST, WITH A CHORD LENGTH OF 147.08 FEET; THENCE SOUTH 64°35'30" EAST A DISTANCE OF 235.10 FEET; THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 101.06 FEET, WITH A RADIUS OF 548.00 FEET, WITH A CHORD BEARING OF SOUTH 59°18'30" EAST, WITH A CHORD LENGTH OF 100.92 FEET; THENCE SOUTH 54°01'30" EAST A DISTANCE OF 348.60 FEET; THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 49.26 FEET, WITH A RADIUS OF 106.80 FEET, WITH A CHORD BEARING OF SOUTH 67°14'15" EAST, WITH A CHORD LENGTH OF 48.82 FEET; THENCE SOUTH 7°23'07" WEST A DISTANCE OF 22.85 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF STATE ROUTE 82; THENCE ALONG SAID NORTH RIGHT OF WAY LINE AS FOLLOWS: THENCE NORTH 82°01'16" WEST A DISTANCE OF 52.50 FEET; THENCE NORTH 80°13'35" WEST A DISTANCE OF 900.00 FEET; THENCE NORTH 78°30'30" WEST A DISTANCE OF 194.85 FEET; THENCE NORTH 78°35'12" WEST A DISTANCE OF 304.95 FEET; THENCE NORTH 74°58'17" WEST A DISTANCE OF 1294.59 FEET TO THE SOUTHWEST CORNER OF PARCEL E AS DESCRIBED AT THAT QUIT CLAIM DEED RECORDED AT AUDITOR'S FILE NO. 2015-007804; THENCE ALONG THE BOUNDARY OF PARCEL E AS FOLLOWS: THENCE NORTH 26°56'56" EAST A DISTANCE OF 473.32 FEET; THENCE NORTH 72°19'43" WEST A DISTANCE OF 342.86 FEET; THENCE NORTH 17°36'33" EAST A DISTANCE OF 597.91 FEET; THENCE SOUTH 72°23'27" EAST A DISTANCE OF 1544.46 FEET; THENCE SOUTH 0°32'32" EAST A DISTANCE OF 302.00 FEET TO THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 17, WHICH IS THE TRUE POINT OF BEGINNING: TOGETHER WITH THAT PORTION OF PARCEL D AS DESCRIBED IN STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 2016-004302 LYING SOUTHEASTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE EASTERLY MOST CORNER OF SAID PARCEL D; THENCE NORTH 72°37'27" WEST 342.87 FEET ALONG THE NORTHEASTERLY LINE OF SAID PARCEL D TO AN ANGLE POINT IN THE WEST LINE OF PARCEL E OF SAID STATUTORY WARRANTY

EXHIBIT A

DEED AND TO POINT OF BEGINNING; THENCE SOUTH 17°20'25" WEST 479.39 FEET ALONG THE SOUTHERLY PROLONGATION OF SAID WEST LINE TO THE SOUTH LINE OF SAID PARCEL D AND THE TERMINUS OF SAID DESCRIBED LINE. (BOUNDARY LINE ADJUSTMENT AF#2021-028142, 06/14/2021).

EXHIBIT B

Preliminary Colorado Street Sewer Latecomer Agreement Construction Cost Estimate

			UPFRONT COST
City of Kennewick			Estimated Construction Cost *
			\$479,936.00
ASSESSMENT AREA	PARCEL # LEGAL DESCRIPTION	PROPERTY OWNER(S)	FUTURE ASSESSMENT
PARCEL A	#117892000001017	Matt Smith	Latecomer Assessment **
	See legal description Page 2	Tri Cities Development Company, LLC	\$98,815.43
PARCEL B	#117892090001000	Matt Smith	Latecomer Assessment **
	See legal description Page 2	Tri Cities Development Company, LLC	\$104,870.30
PARCEL C	#117892090002000	Matt Smith	Latecomer Assessment **
	See legal description Page 2	Tri Cities Development Company, LLC	\$67,209.03
Total Latecomer Assessment for Parcels A, B, & C			\$270,894.76
PARCEL D	#118891000001008	Marcus Fullard-Leo	Latecomer Assessment **
	See legal description Pages 2 & 3	Jaycee Structure, LLC	\$181,754.68
PARCEL E	#118891090001010	Marcus Fullard-Leo	Latecomer Assessment **
	See legal description Pages 3 - 5	Jaycee Structure, LLC	\$27,286.56
Total Latecomer Assessment for Parcels D & E			\$209,041.24
* Estimated construction cost include an 8" sewer main (developer size required). Actual size will be 12" sewer. Estimated construction cost includes roadway grading which only applies to Matt Smith's properties, parcels A, B, & C. ** Preliminary assessment of Latecomer share to be paid in the future if parcels are developed per KMC 5.60.			

EXHIBIT B

Preliminary Colorado Street Sewer Latecomer Agreement Construction Cost Estimate

		SCHEDULE OF VALUES			
NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
1	Mobilization (33% of total project cost)	1	LS	\$244,000	\$80,520
2	SPCC Plan (33% of total project cost)	1	LS	\$2,000	\$660
3	Construction Surveying (33% of total project cost)	1	LS	\$15,000	\$4,950
4	Shoring and Trench Safety Systems (33% of total project cost)	1	LS	\$24,000	\$7,920
5	As-Built Drawings (33% of total project cost)	1	LS	\$4,000	\$1,320
6	SDR35 PVC Sanitary Sewer Pipe 8" In. Diam.	2,237	LF	\$85	\$190,145
7	Manhole 48 In. Diam. Type 1	7	EA	\$8,000	\$56,000
8	Connect to Existing Manhole	1	EA	\$2,000	\$1,500
9	Roadway Grading***	5,173	CY	\$10	\$51,730
10	Site Restoration (33% of total project cost)	1	LS	\$3,960	\$3,960
11	Latecomers Fees (per KMC 5.60**)	1	LS	\$2,680	\$2,680
SUBTOTAL					\$401,385
BENTON COUNTY SALES TAX				8.7%	\$34,920
SUBTOTAL					\$436,305
Latecomers Administrative Fee (per KMC 5.60)				10%	\$43,631
TOTAL ESTIMATED COSTS					\$479,936
*Actual pipe size to be installed will be 12", ** fees adjusted based on ENR CCI as required by KMC *** No 9 Roadway Grading costs only apply to the Matt Smith's Latecomer Agreement for parcels A, B, & C					

Council Agenda Coversheet	Item Number: 6.e. Item Type: Public Hearing Subject: Resolution: Vacation of a portion of a 40.00 foot Utility Easement Located at 3404 W 46th Ave. Department: Public Works Resolution #: Contract # ENG-2024-0001	Category: Ordinance/Reso Public Mtg / Hrg
		
<u>Recommendation</u> Staff recommends that Council adopt the resolution as presented. The resolution declares a surplus of a portion of a 40.00 foot wide utility easement located at 3404 W. 46th Ave. Staff further recommends that Council authorize the Mayor to execute all required documents such as the Quit Claim Deed.		
<u>Motion for Consideration</u> Motion to adopt the resolution as presented and authorize the Mayor to execute all necessary documents.		
<u>Summary</u> Adrian Hoffarth requests the vacation of 20.00 feet of a 40.00 foot wide utility easement at 3404 West 46th Avenue to allow for the placement of an Accessory Dwelling in a portion of the easement. Only a portion of the easement is being used for Sanitary Sewer and the 20.00-foot requested to be vacated is not being used and is no longer needed. The request has been reviewed by City staff and utility companies; there are no objection to the proposed vacation.		
<u>Alternatives</u> None recommended.		
<u>Fiscal Impact</u> There are no fiscal impacts to the City of Kennewick.		
<u>Attachments:</u> 1. Resolution 2. Deed 3. Map		

CITY OF KENNEWICK
RESOLUTION NO. 24-_____

A RESOLUTION OF THE CITY OF KENNEWICK DECLARING SURPLUS
A PORTION OF A UTILITY EASEMENT WITHIN 3404 WEST 46TH
AVENUE

WHEREAS, **Adrian J. Hoffarth and Ashley L. Hoffarth, husband and wife** have requested the vacation of a certain utility easement located on their property; and

WHEREAS, RCW 35.94.040 provides for the disposal of surplus property originally required for public utility purposes; and

WHEREAS, notice has been published on October 25, 2024, that a public hearing would be held on this date concerning disposal of this property; NOW, THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON that property originally acquired for the purpose of a utility easement and described as follows:

Parcel Numbers: 1-2289-102-0001-025

EASEMENT RELINQUISHMENT AREA:

THE NORTHERLY 40.00 FEET OF THE HEREINAFTER DESCRIBED TRACT;
EXCEPT THE WESTERLY 10.00 FEET THEREOF; ALSO EXCEPTING THE
EASTERLY 2.50 FEET THEREOF; ALSO EXCEPTING THE NORTHERLY 20.00
FEET THEREOF.

TRACT DESCRIPTION:

LOT 25, BLOCK 1, LAKEVIEW RANCHETTES, ACCORDING TO THE PLAT
THEREOF RECORDED IN VOLUME 10 OF PLATS, PAGE 32, RECORDS OF
BENTON COUNTY, WASHINGTON; TOGETHER WITH THAT PORTION OF
VACATED 45TH AVENUE LYING NORTH OF AND ADJACENT TO THE NORTH
LINE OF SAID LOT, PURSUANT TO CITY OF KENNEWICK ORDINANCE NO.
3413, RECORDED UNDER AUDITOR'S FILE NUMBER 92-020947, WHICH
ATTACHED BY OPERATION OF LAW.

is hereby found to be surplus to the City's needs and not required for the providing of continued services; and

BE IT FURTHER RESOLVED that the consideration to be paid for the release of this easement shall be \$50.00; and

BE IT FURTHER RESOLVED that the Mayor of the City of Kennewick is authorized to deed by quitclaim to **Adrian J. Hoffarth and Ashley L. Hoffarth, husband and wife** the above-described easement and deliver the same upon payment.

PASSED BY THE CITY COUNCIL OF THE CITY OF KENNEWICK, WASHINGTON, this 5th day of November, 2024, and signed in authentication of its passage this 5th day of November, 2024.

Attest:

GRETLE J. CRAWFORD, Mayor

KRYSTAL TOWNSEND,
City Clerk

RESOLUTION NO. 24-_____ filed
and recorded in the office of the City
Clerk of the City of Kennewick
Washington, this 6th day of November,
2024

Approved as to Form:

LAURENCIO SANGUINO,
City Attorney

KRYSTAL TOWNSEND,
City Clerk

Return To:

City of Kennewick
PO Box 6108
Kennewick, WA 99336

QUIT CLAIM DEED

Location: 3404 W. 46th Ave.
Tax Parcel ID #: 1-2289-102-0001-025

THE GRANTOR, CITY OF KENNEWICK, a Washington municipal corporation for and in consideration of mutual interest, conveys and quit claims to **Adrian J. Hoffarth and Ashley L. Hoffarth, husband and wife** the following described utility easement situated in the County of Benton, State of Washington, together with all after acquired title of the Grantor therein:

EASEMENT RELINQUISHMENT AREA:

THE NORTHERLY 40.00 FEET OF THE HEREINAFTER DESCRIBED TRACT; EXCEPT THE WESTERLY 10.00 FEET THEREOF; ALSO EXCEPTING THE EASTERLY 2.50 FEET THEREOF; ALSO EXCEPTING THE NORTHERLY 20.00 FEET THEREOF.

TRACT DESCRIPTION:

LOT 25, BLOCK 1, LAKEVIEW RANCHETTES, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 10 OF PLATS, PAGE 32, RECORDS OF BENTON COUNTY, WASHINGTON; TOGETHER WITH THAT PORTION OF VACATED 45TH AVENUE LYING NORTH OF AND ADJACENT TO THE NORTH LINE OF SAID LOT, PURSUANT TO CITY OF KENNEWICK ORDINANCE NO. 3413, RECORDED UNDER AUDITOR'S FILE NUMBER 92-020947, WHICH ATTACHED BY OPERATION OF LAW.

Dated: November 5, 2024 **CITY OF KENNEWICK, WASHINGTON**

STATE OF WASHINGTON)
)ss.
COUNTY OF BENTON)

GRETJ. CRAWFORD, Mayor

I certify that on this 5th day of November, 2024, before me, the undersigned Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared GRETJ. CRAWFORD known to be the Mayor of the City of Kennewick, Washington, the corporation that executed the foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said municipal corporation for the uses and purposes therein mentioned, and on oath stated is authorized to execute said instrument.

Witness my hand and official seal hereto affixed the day and year first above written.

Notary Public in and for the State of
Washington residing at _____
My Commission Expires: _____

EXHIBIT MAP
N.T.S.

SOUTH LEDBETTER STREET

20'

20'

10'

20'

2.50'

40 FOOT WIDE EASEMENT CREATED
BY VACATED 30 FOOT WIDE W. 45TH
AVE. AND A PLATTED 10 FOOT
UTILITY EASEMENT.
20 FOOT WIDE HATCHED AREA OF
EASEMENT PROPOSED TO BE
VACATED AND NORTH 20 FOOT OF
EASEMENT TO REMAIN FOR
EXISTING SEWER MAIN.

PARCEL # 1-2289-102-0001-025
3404 W. 46TH AVE.
EASEMENT TO BE VACATED 1,664
SQUARE FEET

WEST 46TH AVENUE



Council Agenda Coversheet	Item Number: 7.a. Date: 11/5/2024	Category: Other
	Item Type: Presentation Subject: 2025 Legislative Agenda Department: Executive Department	
<u>Recommendation</u> Staff recommends Council adopt the 2025 Legislative Agenda as presented. <u>Motion for Consideration</u> Motion to approve the 2025 State Legislative Agenda as presented. <u>Summary</u> Briahna Murray of Gordon Thomas Honeywell will give an overview of the upcoming state legislative session and present the City of Kennewick's draft 2025 Legislative Agenda for council consideration. <u>Alternatives</u> Not applicable. <u>Fiscal Impact</u> Not applicable.		
<u>Attachments:</u> 1. 2025 Legislative Priorities 2. Presentation		

Top Legislative Priorities

City of Kennewick Government

Columbia Park Boat Launch Replacement

The City requests \$1.3 million to replace a failing boat launch at Columbia Park – a focal point for Water Follies, the annual Salmon Summit and other community events. The Columbia Park Boat Launch is nearing its end of life, causing floats to sink into the water. In 2020, the City received a Recreation and Conservation Office (RCO grant). Combined with local funds, the City designed a replacement boat launch. The project is now construction-ready and permitted for construction until 2028. Once replaced, the new boat launch will provide sustainable, environmentally friendly, and accessible boarding floats to improve access and activities on the Columbia, Snake and Yakima Rivers for residents and visitors.

Community Connectivity: At-Grade Rail Solutions Study

A United Pacific (UP) and Burlington Northern Santa Fe (BNSF) rail line runs through the Kennewick community, with several at-grade rail crossings. In downtown Kennewick, there are three at-grade rail crossings: Washington, Benton and Fruitland). Additionally, there are two in west Kennewick: Kellogg and Edison. The crossings cause delays of up to 20 minutes for residents. The City requests \$300,000 to study potential solutions to improve safety and alleviate traffic delays, including grade-separation and other enhancements, as rail traffic increases in the region with the completion of improvements at Stampede Pass.

Columbia Center Boulevard Widening

Columbia Center Boulevard is one of Kennewick's main arterial streets and is a freight corridor. The Boulevard serves the existing Columbia Center Mall, Costco, Toyota Center, and Three Rivers Convention Center and experiences continuously high traffic volumes. Kennewick requests \$14.7 million to add a south and northbound lane to Columbia Center Boulevard from Quinalt to Deschutes Avenues. The project is recognized regionally as #3 on the Benton-Franklin Council of Government's Top Six Regional Transportation Projects.

Public Safety Communication System Infrastructure Upgrades

Kennewick joins communities throughout the Tri-City region to request funding to replace failing analog radio infrastructure and transition law enforcement, fire, and EMS agencies in both counties, as well as a portion of Walla Walla County, to a single, P25 compliant, digital communications platform.

Three Rivers Convention Center Expansion

The City joins the Kennewick Public Facility District in asking for the state's assistance in expanding the Three Rivers Convention Center. To continue to be Eastern Washington's leading event center, the Convention Center needs to be expanded to add exhibit space, meeting rooms, and other support spaces. Once expanded, the Convention Center will attract nearly 200,000 visitors and over 70,000 hotel reservations annually.



Policy Statements

The City of Kennewick supports the efforts of the Association of Washington Cities. Below are issue areas of emphasis that the City follows with close attention and engagement:



Infrastructure Funding:

The City of Kennewick supports increased funding to state grant programs for local infrastructure, including the Public Works Assistance Account, grant programs through the Recreation and Conservation Office, the Transportation Improvement Board and other like grant programs.



Water Quality /PFAS:

The City of Kennewick is committed to providing quality water to its current and future residents. The City is concerned about the increasing presence of PFAS impacting water quality, and will closely monitor legislation regulating PFAS.



Homelessness:

The City of Kennewick has taken a compassionate approach to managing individuals experiencing homelessness within the community. The City asks that the Legislature honor this approach, including maintaining the ability to regulate encampments in public rights-of-way.



Public Safety:

Increase funding to cities and counties to hire and retain police officers. Additionally, enhance officer training through continued state funding of 100% of Basic Law Enforcement Academy (BLEA) costs and expand existing regional academies. Additionally, the City encourages ongoing funding to support pre-charging diversion programs for those experiencing behavioral health challenges.



Public Defense:

The City of Kennewick is responsible for providing public defense services to indigent defendants of misdemeanor charges. The City asks for the state's partnership in recruiting public defenders and allocating the necessary funding needed to meet public defense caseload standards under consideration by the Washington State Supreme Court.



Local Community Decision-Making:

The City of Kennewick conducts significant public processes and community engagement when developing local policies. The City calls on the Legislature to honor this community-driven process and allow decisions to be made locally, particularly in relation to land use and right-of-way management.



Fiscal Sustainability:

The City of Kennewick urges the Legislature to approve policies and tools that allow local governments to maintain fiscally sustainable budgets that keep pace with inflation, such as removing the 1% cap on property tax levies.



Juvenile Interrogations:

The City of Kennewick joins stakeholders in requesting that the Legislature clarify a 2021 law ensuring that juveniles who are suspects of a crime are provided with an attorney prior to being questioned by law enforcement, but that juveniles who are witnesses to or victims of a crime can otherwise be interrogated by law enforcement.



Rising Labor Costs

The City of Kennewick urges the Legislature to consider local costs when addressing labor-related issues, including PERS cost-of-living increases, expanded eligibility for the state Paid Family Medical Leave program, and impacts to collective bargaining.



CITY OF KENNEWICK

BRIAHNA MURRAY
GORDON THOMAS HONEYWELL
GOVERNMENT RELATIONS
GTH-GOV

NOVEMBER 5, 2024



INTRODUCTIONS

- Briahna Murray primary point of contact
- Holly Sanabria is policy analyst providing support
- Entire team to provide intel, relationship connections

OVERVIEW

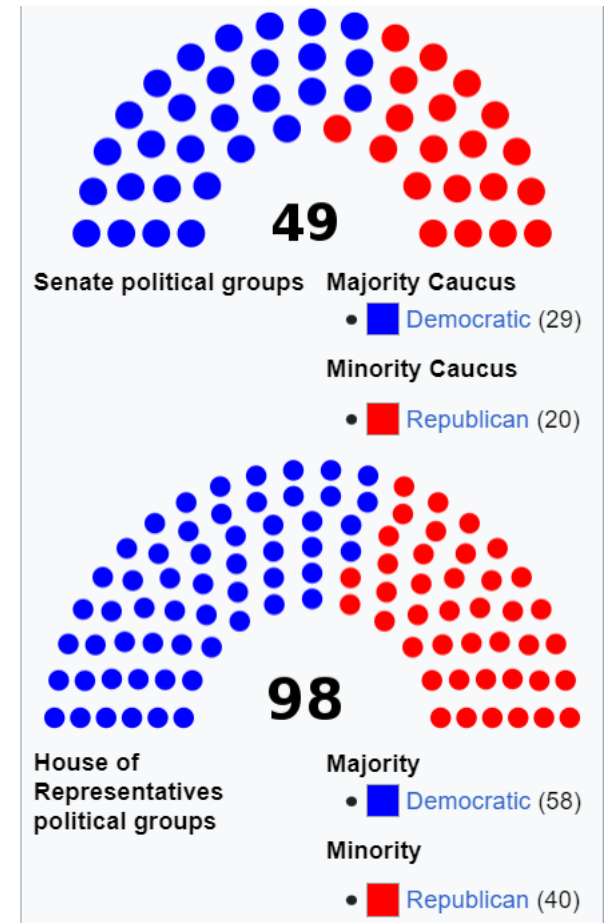
2025 Legislative
Session
Expectations

Draft 2025
Legislative
Agenda
Priorities

Next Steps

2025 LEGISLATIVE SESSION – POLITICAL CLIMATE

- Governor, Attorney General, Commissioner for Public Lands
- Significant legislative turnover in 2025, unlikely political shift
 - All House members, half the Senate
 - Many choosing to not seek re-election
- Four Initiatives on the ballot



2025 LEGISLATIVE SESSION EXPECTATIONS

First year of the two-year biennium, 105-day session

Tasks

- Develop 2025-27 Operating, Capital, and Transportation budgets
- Consider and adopt policy bills

Budget Context

- Operating Budget – Approximately \$5 billion shortfall caused by flattening/slightly decreasing revenues and rising costs
- Transportation budget - Shortfalls in delivering packages, regardless of the Climate Commitment Act (CCA)
- Capital budget - Not expected to increase in size like it has in recent years



LEGISLATIVE AGENDA GUIDANCE

Legislative Agenda

- 3-5 high priority issues for the City
- Funding request or specific request for a change to state law
- Purpose: Focus City resources (staff time & legislator's time) on the areas that will most directly benefit the City

Policy Issues

- List of policy areas that impact City business where legislation may be introduced
- Purpose: Allow for timely engagement on issues that could have a significant positive or negative impact on the City

KEY LEGISLATIVE FOCUS ITEMS

- Columbia Park Boat Launch Replacement
- Regional Emergency Communication
- Community Connectivity: Corridor Study
- Columbia Center Boulevard Widening
- Three Rivers Convention Center Expansion

POLICY ISSUES

- Infrastructure Funding
- Water Quality/PFAS
- Homelessness
- Public Safety
- Public Defense
- Local Community Decision-Making
- Fiscal Sustainability



QUESTIONS?

Council Agenda Coversheet	Item Number: 7.b.	Date: 11/5/2024	Category: Other
	Item Type:	Contract/Agreement/Lease	
	Subject:	Contract: 2025-2028 Collective Bargaining Agreement - IUOE	
	Department:	Executive Department	
<u>Recommendation</u>			
Staff recommends that Council approve and authorize the Mayor and City Manager to sign the proposed agreement between the City of Kennewick and the International Union of Operating Engineers, Local #280.			
<u>Motion for Consideration</u>			
Motion to authorize the Mayor and City Manager to sign the collective bargaining agreement as presented.			
<u>Summary</u>			
The previous collective bargaining agreement between the City and the IUOE expires December 31, 2024. The parties have reached a tentative agreement on a successor contract with the following economic terms:			
Term of agreement: Four years, from January 1, 2025, to December 31, 2028.			
Key economic elements of this agreement include:			
• Article 8 section 5: The City will pay the General Services Administration (GSA) based on the meal that is earned in accordance with the CBA. • Article 8 section 8 subsection D: The city will increase the rate of the on-call program from \$3.00 per hour to \$5.00 per hour for all hours, an employee is expected to remain in an on-call status. • Article 10: The City will increase the uniform allowance from 400 dollars per year to 500 dollars per year. • Exhibit A: The city will provide an overall 5% increase to the salary wage schedule for the first year of the contract. Each additional year, the City will increase wages by 100% of CPI-U, All-Cities (July-July), with a minium of 3% and maximum of 4% increase.			
<u>Alternatives</u>			
No alternatives are recommended.			
<u>Fiscal Impact</u>			
The economic impact of the agreement is within the bargaining parameters previously authorized by City Council.			
Attachments:			
1. Agreement 2. Redline			

COLLECTIVE BARGAINING AGREEMENT

Between

CITY OF KENNEWICK

and

**INTERNATIONAL UNION OF OPERATING
ENGINEERS**

January 1, 2025 – December 31, 2028

**2025-2028
COLLECTIVE BARGAINING AGREEMENT
BETWEEN THE
CITY OF KENNEWICK and
LOCAL UNION NO. 280
INTERNATIONAL UNION OF OPERATING ENGINEERS**

THIS AGREEMENT is made and entered into by and between the CITY OF KENNEWICK, WASHINGTON, serving the Water, Wastewater, Equipment Rental, Parks, Facilities, Streets, Storm Water, and Traffic Divisions, hereinafter called the "City," and LOCAL #280 of the INTERNATIONAL UNION OF OPERATING ENGINEERS, hereinafter called the "Union."

WITNESSETH: The City and the Union recognize that harmonious relations should be maintained between them and with the public. All will benefit by continuous peace and by adjusting any differences which may arise by rational common sense methods. Since it is unlawful to strike against the government, we therefore give our unequivocal pledge that the Union will neither initiate, support, nor condone a strike against the City of Kennewick. Provided however, except for emergencies, employees shall not be required to cross a legally sanctioned (as AFL-CIO sanctioned) picket line against another employer, but in such cases, the City may perform the work by contract or by supervisors.

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ARTICLE 1 – TERM AND SCOPE OF AGREEMENT

1.1 This Agreement shall be and hereby does become effective January 1, 2025 and shall remain in full force and effect up to and including December 31, 2028. If either party desires to amend this contract, they shall give written notice of such intentions to the other party no later than June 30, 2028. The proposed changes, which shall constitute the subject of negotiations for amendment, shall accompany such notice of intention to enter into negotiations for amendment. Any changes or modifications mutually agreed to by the parties shall become effective January 1, 2025, or later, if mutually agreed upon by the parties, and shall not be retroactive.

1.2 It is understood and agreed that if, during the term of this Agreement, mandatory laws applicable to and in conflict with any of the provisions hereof shall become effective and thereafter govern the parties in respect to such conflicting provisions, then and in that event this Agreement shall be subject to revisions by mutual agreement of the parties hereto, covering the changes in the provisions which conflict.

ARTICLE 2 – UNION MEMBERSHIP

2.1 The City hereby recognizes Local 280 as the exclusive bargaining representative for the purposes stated in Chapter 41.56 RCW of all regular full-time employees employed within the bargaining unit and job classifications listed in this Agreement. The foregoing provisions shall not be construed as denying the City the right to select any new employee. Further, the City shall have the right to select and/or retain any supervisory employee. The foregoing provisions shall not be construed as denying the City the right to select any new employee. Further, the City shall have the right to select and/or retain any supervisory employee. Further, nothing contained in this Section shall be construed to apply to part-time employees or to temporary employees with less than thirty (30) days of continuous employment.

2.2 The City will deduct membership dues and pay to Local #280 from the wages of all employees who, in writing, have authorized the City to do so, and will submit a monthly accounting of such deduction, giving the amount deducted opposite the employee's name, as long as such assignment is not revoked or beyond the termination of this Agreement, whichever first occurs. The International Union of Operating Engineers, Local #280, agrees to indemnify and hold the City harmless against any claims, suits, order or judgments brought and issued against the City as a result of any action taken or not taken by the City on account of a payroll deduction of Union dues.

2.3 The City shall furnish bulletin board space for the use of the Union for posting Union announcements and data. Notices or bulletins which the Union intends to have posted will be routed by the Union through the City Manager's Office for approval, which will not be unreasonably withheld. The City shall have no responsibility for the content of material posted on the bulletin board.

ARTICLE 3 – CLASSIFICATIONS

3.1 The classification and wage rates for all full-time employees of the City covered by this Agreement and eligible for Union membership shall be listed in Exhibit “A”, attached hereto. A newly-hired employee shall be considered a probationary employee for a period of twelve (12) calendar months, during which time he/she will acquire no seniority credit. However, upon successfully completing the probationary period, that person shall be considered a regular employee, and he/she shall have his/her seniority established as of his/her date of hire as a probationary full-time employee. New hires shall receive a performance review at the end of six (6) months. Probationary employees receiving satisfactory six-month performance reviews shall be allowed to progress in the salary schedule.

During the first twelve (12) months of probation the City reserves the right to terminate the probationary employee with or without cause. The Union may represent probationary employees during the probationary period, except that newly-hired probationary employees may be discharged at any time without cause and without the right of appeal under the terms of the contract.

When it is found necessary to add new classifications to this Agreement, the City Manager or his/her representative and the Union shall meet to reach an agreement on wages and conditions for said new classifications. Said agreement shall be subject to approval by the City Council. The City reserves the right to determine if and when newly created vacant positions will be filled.

ARTICLE 4 – EMPLOYER RIGHTS

4.1 Subject only to the express limitations stated in this Agreement, or in any other agreement between the employer and the Union, it is agreed that the customary and usual rights, powers, functions, responsibilities and authority of management are vested in management officials of the City, and are not subject to appeal through the grievance procedure unless otherwise expressly provided by the terms of this Agreement. Included in these rights in accordance with applicable laws and regulations and this collective bargaining agreement are:

- 4.1.1 The right to direct the work force;
- 4.1.2 The right to hire, promote, retain, transfer, and assign employees in positions;
- 4.1.3 The right to suspend, discharge, demote, or take other disciplinary action against employees;
- 4.1.4 The right to release employees from duties because of lack of work or for other legitimate reasons;
- 4.1.5 The right to maintain efficiency of the City operations by determining the methods, the means, and the personnel by which such operation is conducted;
- 4.1.6 To take whatever actions are necessary in emergencies in order to assure the proper operation of the City; and
- 4.1.7 To control the City budget.

ARTICLE 5 – RECOGNITION

5.1 The City is engaged in public service requiring continuous operating and it is agreed that recognition of such obligation of continuous service during the term of this Agreement is imposed upon both the City and its employees, members of said Local #280, and the Union itself.

5.2 The Union agrees that its members, who are employees of the City, shall individually and collectively perform efficient work and service; that they shall avoid and discourage waste of materials, time, and manpower; that they shall use their influence and best efforts to protect the City and its interest and to prevent loss of tools and materials; and that they shall cooperate with the City in promoting and advancing the welfare of the City and the service at all times.

5.3 The City retains the right to exercise discipline in the interest of good service and the proper conduct of its business, provided that any regular employee (or his/her representative) who has been laid off, disciplined, or discharged shall be advised of the reason or reasons for such action.

5.4 Disciplinary materials at the level of a written reprimand or higher shall be maintained in the official personnel file of the employee. Access to personnel files shall be limited to the employee, the employee's authorized representative, officials of the City who have a business need for the access, or as required by public records and freedom of information laws at the federal or state level. Employees shall have the right to review their files after providing reasonable advance notice, and shall have the right to attach reasonable materials in explanation or rebuttal to adverse materials. Adverse materials shall not be placed in the personnel file without the knowledge of the employee.

Consideration will be given for removal of disciplinary material from employees' active personnel files upon written request by the employee to the Human Resources Director. A request may not be made until eighteen (18) months have passed since the date of the issue of the discipline unless otherwise agreed. The Human Resources Director will review the matter with the Department Director and provide the employee with a written response within ten (10) days of receipt of the request for removal.

All "last chance agreements" will be removed from employees' active personnel files and placed in confidential administrative files after thirty-six (36) months, provided there are no further issues during that time frame. This language will apply to existing last chance agreements currently on file. It will be the responsibility of the affected employee to notify the Human Resources Director once thirty-six (36) months have passed.

ARTICLE 6 – COMPLAINT, GRIEVANCE, AND ARBITRATION

6.1 Complaint Procedure.

One of the purposes of this Agreement is to provide for the resolution of any employee's complaint properly and equitably. Initiation of a complaint may result from one or more of the following reasons:

- A. If the employee believes he/she has been unfairly treated;
- B. If the employee disagrees with his/her supervisor as to the application of a policy to him/her. Initiation of said complaint shall not subject the employee to discrimination, coercion, restraint, or reprisal as a result of initiating such action. In resolving complaints, the procedure shall be as follows:

Step 1. The employee, together with the Steward if desired by the employee, shall discuss the complaint with his/her supervisor within two (2) working days subsequent to the date of occurrence inasmuch as most problems can be resolved promptly by informal discussion. The supervisor shall verbally rule on the complaint within two (2) working days thereafter. However, in the event the employee is not satisfied with the decision of the supervisor, he/she may initiate Steps 2 and 3 below. Such procedure shall commence within six (6) working days subsequent to the date of occurrence.

Step 2. The employee, together with the Steward and the supervisor, shall orally or in writing submit to the Department Director the facts upon which the complaint is based. The Department Director shall then review the facts. The Department Director shall then notify the employee and the supervisor of his/her decision in writing within five (5) days of the date of receipt of the facts.

Step 3. If the employee is not satisfied with the decision resulting from Step 2, the employee may submit his/her further appeal in writing to the City Manager within two (2) working days from the date of the Department Director's decision. The City Manager, upon receipt of such appeal, shall call a hearing on the issue within ten (10) calendar days of receipt of the written appeal. At such hearing, the employee and his/her representative, the Department Director and his/her representative, if desired, together with the witnesses, if any, shall present the facts of the case to the City Manager or his/her representative. The City Manager shall present his/her decision on the issue in writing to the employee and Department Director within ten (10) calendar days of the date of the hearing. The City Manager's decision shall be final.

6.2 Grievance Procedure.

A grievance is defined as: a) A dispute as to the application or interpretation of this Agreement; or b) If the employee believes he/she has been unfairly disciplined, demoted, suspended or terminated. It is the desire of the parties of this contract to adjudicate grievances as quickly and efficiently as possible. To this end, the following procedure shall apply:

Step 1. The employee who has a grievance shall submit it to his/her supervisor within five (5) working days of the event giving rise to the grievance. A working day shall be defined as any day City Hall is open to the public. Failure to do so will constitute a waiver of the grievance. The supervisor shall give his/her oral answer within five (5) working days after such presentation.

Step 2. If a grievance is not settled in Step 1, and the employee wishes to appeal the grievance to Step 2 of the Grievance Procedure, the employee shall submit the written grievance to the Department Director, the Director of Human Resources, and the Union Business Representative within five (5) working days after the designated supervisor's answer in Step 1. The written grievance shall be signed by both the employee(s) and the supervisor. The written grievance shall set forth the nature of the grievance, the facts on which it is based, the provision or provisions of this Agreement allegedly violated, and the relief requested. Within five (5) working days, the Department Director or his/her representative shall discuss the grievance with the Union Steward and the employee at a time mutually agreed to by the parties. If the grievance is settled as a result of such meeting, the settlement shall be reduced to writing and signed by the City Manager and the Union. If no settlement is reached, the Department Director or his/her representative shall give the Department's written answer to the Union within five (5) working days following their meeting.

Step 3. If the grievance is not settled in Step 2, and the employee desires to appeal, the matter shall be referred by the employee in writing to the City Manager within five (5) working days after the designated Department Director's answer in Step 2. A meeting between the City Manager or his/her representative and the employee and his/her representative shall be held at a time mutually agreeable to the parties. If the grievance is settled as a result of such meeting, the settlement shall be reduced to writing and signed by the City Manager or his/her representative, and the Union. If no settlement is reached, the City Manager or his/her representative shall give the City's written answer to the Union within ten (10) working days following their meeting.

Step 4. A Steward, upon request of the employee, shall be present in cases of disciplinary action except where management may determine a delicate case may exist such as involving a police matter in which an employee may be confronted and suffer unnecessary and personal embarrassment, or in special situations where it is necessary to take immediate disciplinary action and a Steward is not on duty and available. An employee may not be disciplined by a supervisor or manager of another division unless the employee is assigned to, or is temporarily working in, that division.

6.3 Arbitration.

6.3.1 All disputes raised by the employee against the City involving the application of the specific provisions of the Agreement and not settled by means of the grievance procedure may be disposed of by arbitration in a manner and form hereafter provided. If not settled, the grievance may be referred to arbitration within seven (7) working days after the receipt of the City Manager's answer in Step 3 of the grievance procedure.

The parties shall attempt to agree upon an arbitrator within five (5) calendar days after receipt of notice of referral. In the event the parties are unable to agree upon an arbitrator within said five (5) day period, the parties shall immediately jointly request the Public Employment Relations Commission to submit a panel of at least five (5) arbitrators. Either party may reject one (1) entire panel at any time during the selection process. Both the City and the Union shall have the right to strike two (2) names from the panel. The party requesting arbitration shall make the first strike from the list of arbitrators. The second party shall then strike a second name, the first party a third name, the second party a fourth name, and the remaining person shall be the arbitrator. The arbitrator shall be notified of his/her selection by a joint letter from the City and the Union requesting that he/she set a time and place for an arbitration hearing, subject to the availability of the City and the Union representatives. All arbitration hearings shall be held in Kennewick, Washington (unless the parties mutually agree otherwise).

6.3.2 The arbitrator shall render his/her decision based on the interpretation and application of the provisions of this Agreement. The arbitrator shall have no power or authority to add to, subtract from, or modify any of the terms or provisions of this Agreement.

The arbitrator shall only consider and make a decision with respect to the specific issue submitted to him/her. The arbitrator shall have no authority to make a decision on any other issue not submitted.

In the event the arbitrator finds that he/she has no authority or power to rule in the case, the matter shall be referred back to the parties without decision or recommendation on the merits of the case. In any grievance in which there is a dispute as to whether the matter may be arbitrated or not, the arbitrator shall first rule on this issue. The arbitrator shall have no authority to make or impose a decision which is inconsistent with state or federal law. The arbitrator shall have no power or authority to award punitive damages. No decision of the arbitrator in one case shall create a basis for retroactive adjustment in another case where the facts and circumstances are different. The arbitrator shall have the power and authority to hear only grievances that are timely-filed in accordance with time limits specified by this Article or mutually extended by the parties. The arbitrator may not entertain arguments of continuous grievance as justification for not filing a timely grievance. The arbitrator shall submit his/her decision in writing within thirty (30) calendar days following the close of the hearing or the submission of briefs by the parties, whichever is later, unless the parties agree to a written extension thereof. The decision shall be final and binding upon the parties to the grievance, provided the decision does not involve action by the arbitrator which is beyond his/her jurisdiction.

6.3.3 The fees and expenses of the arbitrator shall be borne equally by the Union and the City. Each party will be responsible for compensating its own representatives and witnesses, and purchasing its own copy of the written transcript. Time involved with preparing and presenting the case shall not be considered as hours worked and will not be reimbursed by the employer.

6.4 If a complaint or grievance is not presented within the time limits set forth above, it shall be considered waived. If there is no appeal to the next step within the specified time limit, or any agreed extension thereof, the matter shall be considered settled on the basis of the City's last answer. If the City does not answer a grievance or an appeal thereof within the specified time limits, the Union may elect to treat the grievance as denied at that step and immediately appeal the grievance to the next step. The time limit in each step may be extended by mutual agreement of the City and the Union or the employee involved in each step. A working day shall be defined as any day City Hall is open to the public.

6.5 Management Grievance/Arbitration. In recognition of the mutual obligation of the parties to this Agreement to abide by its terms and conditions, the City may file a grievance for violation or improper application of this Agreement by any employee or the Union. Such grievance may be appealed to arbitration at the option of the City.

6.6 The Union may file a grievance for violation of or improper application of this Agreement by the City.

ARTICLE 7 – HOURS OF WORK

Section 7.1 applies to employees hired before August 21, 2012; Section 7.2 applies to employees hired August 21, 2012 or later; all other Section in this Article apply to all employees regardless of position or date of hire.

7.1 Hours of Work for employees hired before August 21, 2012:

- A. The work week for full-time employees shall be four (4) consecutive ten (10) hour shifts or five (5) consecutive eight (8) hour shifts. Forty (40) hours shall constitute the standard work week. The scheduled work shift shall be not less than eight (8) and not more than ten (10) consecutive hours, excluding a thirty (30) minute unpaid meal period. For employees required to remain in a duty status during lunch, a twenty (20) minute paid meal shall be provided. A work day means a twenty-four (24) hour period commencing with the employee's scheduled work shift. The Department Director, subject to the approval of the City Manager, shall establish appropriate work shifts specifying starting and ending times, lunch period and scheduled days of rest. Each employee shall be allowed a ten (10) minute cleanup time at the end of his/her shift, and not more than a ten (10) minute break, both prior to and after the normal meal period, to be scheduled by the supervisor. As far as it is practicable, the work day shall conform with established hours of other divisions. This conformity shall not interfere with the special time schedules governing divisions operating more than eight (8) hours in each calendar day.

The normal hours of work shall be established as those eight (8) hour shifts falling between 7:00 a.m. and 4:30 p.m. whenever practicable, with the City reserving the right to change hours in accordance with Section 7.2 of this Article to meet its service delivery needs, which then shall be the normal work day. The normal work week shall be Monday through Friday inclusive.

- B. The City may make adjustments to each division's shift starting time when excessive heat affects productivity, efficiency, and/or safety of a work crew. Employees of the department requesting relief of heat stress may petition their respective supervisor for consideration during the month(s) of June, July, and August. Consideration of such requests shall not be unreasonably denied.
- C. The City will provide a twenty-four (24) hour notice for a change of shift. A shift change is defined as modifying an employee's scheduled work day for one or more consecutive days.
- D. The City shall pay a differential of one dollar (\$1.00) per hour for all hours worked between 6:00 p.m. and 6:00 a.m., Monday through Friday, and for all hours worked on Saturday and Sunday. Employees required to work outside their scheduled shift on a temporary scheduled shift due to emergency weather conditions shall receive a shift differential of \$1.00 per hour for all hours worked between 6:00 p.m. and 6:00 a.m., and for all hours worked on a Saturday and Sunday. When employees work in a temporary scheduled shift, their starting and ending times will be changed to coincide with that shift. Shift differential shall not be paid for overtime or premium rate hours as detailed in Article 8.

7.2 Hours of Work for employees hired after August 21, 2012. For purposes of this section, the following definitions shall apply:

- A. **Work Week:** The normal work week commences at 12:01 a.m. Sunday and ends at 12:00 midnight the following Saturday, except where an 8-9s schedule is utilized. The work week for full-time employees shall consist of either four (4) ten (10) hour shifts, five (5) eight (8) hours shifts, or eight (8) nine (9) hour shifts with one eight (8) hour shift every other week. An additional alternative compressed work schedule may include four (4) nine (9) hour shifts and one (1) four (4) hour shift during the work week. Forty (40) hours shall constitute the standard number of hours worked in each work week. For full-time employees working a shift other than 5-8s, 4-10s, or 8-9s, the work week will be set so that employees are scheduled to work no more than 40 hours in a work week. Days of rest in an employee's work schedule shall be consecutive. In the event an 8-9s schedule is utilized, the work week shall commence at 11:01 a.m. on the employee's eight-hour work day and end seven days later at 11:00 a.m.
- B. **Work Shift:** The hours worked each day by the employee, usually in blocks of 8 or 10 hours, excluding the lunch period. The work shift includes starting and ending times and scheduled periods of rest. The scheduled work shift shall be not less than eight (8) and not more than ten (10) hours, excluding a 30-minute unpaid meal period. For employees required to remain in a duty status during lunch, a twenty (20) minute paid meal shall be provided.
- C. **Work Day:** A work day means a twenty-four (24) hour period commencing with the employee's scheduled work shift.
- D. **Shift Change:** Modifying an employee's work starting time and ending time on one or more days or modifying the days on which an employee is required to report to work. The City will provide twenty-four (24) hours advanced notice of a change of shift.

- E. Existing Employees: Employees hired before August 21, 2012 may request a compressed work schedule as provided under subsection A above. The division manager or designee is vested with the exclusive authority to authorize a compressed work schedule, and the decision to authorize a compressed work schedule shall be based on the business needs of the City. In the event a compressed work schedule becomes unsuitable to the business needs of the City, the City may revert back to the normal shift schedule upon giving 30 (thirty) days notice to the affected employee(s).
- F. Compressed Schedule – Holiday Pay/Leave/Overtime: For employees on a compressed work schedule of either 4-10s or 8-9s, the following shall apply:
1. Holidays – Holiday weeks may be scheduled in one of two ways, at the discretion of the division manager or designee:
 - a. Revert to 8-hour work days where holiday pay will be made in accordance with the collective bargaining agreement; or
 - b. Maintain the alternative compressed work schedule. When a holiday occurs on one of the employee's regularly scheduled work days, the employee will be credited with eight (8) hours of holiday pay. Hours in excess of eight (8) during the holiday shall be charged to PTO or compensation time if available. Water plant operators working ten (10) hour shifts will be compensated at 10 hours for holiday pay if they are required by the City to work that schedule. Additional hours of work may be scheduled during the period, unless annual leave is requested and approved. When an employee's regularly scheduled day off is a Monday and a holiday falls on that day, the employee will be permitted to take off the following day. When an employee's regularly scheduled day off is a Friday and the holiday falls on that day, the employee will be permitted to take the preceding day off.
 2. Leave Time – Time off during an employee's compressed alternative work schedule is charged to the appropriate leave category. Leave will be recognized in accordance with scheduled work hours (e.g., 9 hour work day = 9 hours of leave).
 3. Overtime – Overtime may be ordered and approved subject to the overtime conditions found in this Agreement. Overtime for compressed work schedules is defined as that work or duty time in excess of nine (9) hours in a 9-hour day and eight (8) hours in an 8-hour day for those employees on an 8-9s schedule, or work or duty time in excess of 10 hours in a 10-hour day for those employees on a 4-10s schedule. An employee may request compensatory time off in lieu of overtime pay as provided under this Agreement.
 4. Mandatory Schedule Changes – When an employee on a compressed work schedule is required to travel, participate in a training course, or serve at a location where the hours of work are different than the employee's schedule, the division manager or designee will make individual adjustments in the work hours on a case-by-case basis to ensure that the appropriate number of hours are included in the employee's work

schedule period (40 hours in one week for employees on 4-10s, 80 hours in two weeks for employees on 8-9s). Where necessary, the supervisor may change an employee's schedule to standard 8-hour days or a 40-hour week during critical work assignments requiring this adjustment to correct work problems resulting from the compressed work schedule. Except in the event of an emergency or unforeseen circumstance, employees will be notified one week in advance when a change to the work schedule is required to satisfy operational priorities.

7.3 The City and Union will continue to work together regarding use of the Benton County Department of Corrections work crew(s). The intent is to use work crews for low-skilled labor only. Work crews are allowed to use hand tools, weed-wackers, blowers, and push mowers at the discretion and direction of the City's crewleader. City staff will maintain areas such as Columbia Center Boulevard and 10th Avenue, while work crews maintain areas such as the Tri-City Coliseum, fire stations, plants, and other small areas. The City may add work crews for low-skilled labor only so long as it does not result in the displacement of current employees. The Toyota Center may contract out mowing at its discretion if it does not want to utilize the work crew for such work.

7.4 Employees shall travel from job site to job site on City time and shall report at shop headquarters at which they are regularly employed, although they may be assigned to work within any division covered by this Agreement. Employees shall have a meal period at the nearest location where sanitary facilities are available. During the inclement weather, as determined by the supervisor, such breaks may be permitted at the shop.

7.5 Alternate Work Schedule.

- A. Employees in the Water division (including Water Treatment Plant operators and Water Distribution crews) and Wastewater division (including Wastewater Treatment Plant operators and Wastewater Collection crews) of the Public Works department, irrespective of their dates of hire, will work year-round alternate work schedules.
- B. Employees in the Streets & Storm Water divisions of the Public Works department, irrespective of their dates of hire, will work alternate work schedules between March 1 and October 31 each year. Employees in these divisions will revert to standard work schedules between November 1 and February 28 (or 29) each year. The standard work schedule means Monday through Friday from 7:00 a.m. to 3:30 p.m.
- C. Employees in identified divisions will work the "nine-eighty" alternate schedule identified in Section 2-24-080(2)(b)(ii) of the Kennewick Administrative Code. Specifically, they will work 80 hours in any two-week period over the course of nine working days. In one work week, employees will work four nine-hour days (from 6:30 a.m. to 4:00 p.m.) and one eight-hour day (from 6:30 a.m. to 3:00 p.m.). In the subsequent work week, employees will work four nine-hour days (from 6:30 a.m. to 4:00 p.m.) and have one weekday off work. Employees will split their weekdays off between Mondays and Fridays off in order to minimize the number of employees off on any given day while still providing a three-day weekend every other week.

- D. For the purpose of defining the work week under the Fair Labor and Standards Act (FLSA), employees working alternate schedules will have their work week will begin at the mid-point of their eight-hour shift/weekday off and will end at the same time seven days later. For example, an employee working 6:30 a.m. to 4:00 p.m. with Friday as his or her flex day will have his or her work week start each Friday at 11:00 a.m.
- E. The City maintains the right to make individual adjustments in employees' work hours to correct problems resulting from this alternate schedule (for example, during travel/training or critical work assignments) or in the event of an emergency or unforeseen circumstance as described in Article 7.2(F)(4) of the collective bargaining agreement.

7.6 Meal and Break Periods.

- A. Meal Periods. Employees will be fully relieved from duty for thirty (30) minutes approximately halfway through their scheduled workday. If employees do not have access to clean washing facilities and/or appropriate eating areas at their worksite, the time spent driving to and from the nearest approved facility will not reduce employees' meal period. Employees will not unreasonably detour away from their worksites or away from their route between their worksites and an approved facility.
- B. Break Periods. Employees will be permitted to take one ten (10) minute break before their meal period and one ten (10) minute break after their meal period. Employees will not unreasonably detour away from their worksites and all time spent away from work will constitute part of employees' work breaks.
- C. Cleanup Time. Employees will be permitted up to ten (10) minutes of cleanup time prior to the end of their work shifts as necessary. Employees who do not require cleanup time will continue to work until the end of their scheduled work shift.

ARTICLE 8 – OVERTIME AND PREMIUM RATES

8.1 As a general rule, the requirements of frequent and considerable scheduled overtime service in any organization unit shall be considered evidence of under-staffing or improper organization, and shall be subject to investigation by the City Manager. Any related decision of the City Manager shall be final. Overtime work shall include only that work performed by the employees at the direction of a Department Director or his/her authorized representative which exceeds standard work scheduled, and may be compensated as follows:

8.1.1 Overtime is all required and authorized work performed in excess of a full-time employee's forty (40) hour weekly and/or daily scheduled work shift. A minimum of one (1) hour of overtime shall be paid for scheduled overtime, exclusive of holdover. Overtime may be scheduled without 24-hour notice (this is not considered a shift change or call-in). Overtime pay shall be at the rate of one and one-half (1-1/2) times the regular salary for:

1. Hours in excess of the scheduled full time work day;
2. Hours worked on scheduled days of rest; and
3. More than one (1) scheduled overtime assignment for an employee within a twenty-four (24) hour period shall be paid at a minimum of one (1) hour of double time.

8.1.2 Call-in. An employee called back to work when not scheduled shall be paid for the time so worked but shall be guaranteed a minimum of two (2) hours of double time pay. If the call-in time or a shift change with less than twenty-four (24) hour notice precedes and carries into a scheduled shift, the employee shall terminate the work day upon completion of his/her shift or a maximum of twelve (12) hours based on safety concerns unless agreed upon by the crewleader and supervisor. Time worked during the scheduled shift shall be paid at the straight time rate of pay. The double time call-in rate shall be paid for:

1. Call-in; and
2. Less than twenty-four (24) hour notice of a shift change.

8.1.3 For overtime work on a holiday, an employee shall be compensated at the rate of two (2) times the regular rate of pay for all hours actually worked. In addition, the employee shall receive eight (8) hours of holiday pay at the straight time rate as provided in Article 17.

8.2 For the purpose of overtime pay for employees hired prior to August 21, 2012, the work week shall begin Monday at 12:00 a.m. (midnight) and run through the following Sunday at 11:59 p.m.; and the work day for employees shall start at the time he/she reports to work and shall end twenty-four (24) hours later. For employees hired after August 21, 2012, the work week and work day for purposes of overtime shall be as defined in Section 7.2 of this Agreement.

8.2.1 An employee who is required to report to work and does so report, but who is not put to work, shall receive two (2) hours of pay at the straight time rate.

8.3 All employees assigned to work a shift other than their regular work hours will be permitted to work eight (8) straight hours with a twenty (20) minute lunch period, carrying their lunch and eating on the job whenever possible.

8.4 The City agrees to post on the department bulletin board a record of employees' overtime, sick leave, and PTO. Overtime shall be equalized as best as possible on a divisional basis.

8.5 An employee shall be allowed a meal when:

1. He or she has been called out and works a minimum of three (3) hours, or;
2. He or she is called out and the call-out extends into the regularly scheduled shift, or;
3. His or her shift is extended a minimum of two (2) hours

The time allowed for meals shall be non-compensable. The meal period shall be on the City time in all circumstances when the employee is required to remain on duty during the meal period.

Meal allowances will be paid in accordance with the City's travel Policy per diem schedule in effect on the date of the meal. The City's per diem schedule will be updated as the General Services

Administration (GSA) established new rates.

Employees shall pay directly for their meals eaten and are not required to submit meal receipts. Employees may choose a meal of greater or lesser value than the established per diem in effect; however, their meal allowance shall nonetheless equal the per diem meal rate

The following meal period will determine the appropriate meal allowance:

<u>Meal</u>	<u>Meal Period</u>
Breakfast	12:01 am to 8:00 am
Lunch	8:01 am to 4:00 pm
Dinner	4:01 pm to 12:00 am

The time the employee becomes entitled to a meal determines the per-diem rate to be used.

For example: If an employee is called out at 8:30 pm, and works until 1:30 am, the employee is entitled to a meal at 11:30 pm (three (3) hours after the call-out) at the dinner rate. However, if an employee is called out at 10:00 pm and works until 1:30 am, the employee is entitled to a meal at 1:00 am at the breakfast rate.

An employee shall be entitled to a second meal in the event he/she works an additional four (4) hours, without being sent home, on overtime or on his/her normal shift after he/she was entitled to the first meal.

8.6 In lieu of pay for overtime hours actually worked, as defined in Section 8.1 of this Article, an employee may request compensatory time off ("comp time").

Compensatory time off in lieu of pay for overtime shall be subject to the following conditions:

- A. An employee must declare their option at the completion of the overtime work period whether he/she wants overtime pay or comp time for the hours worked.
- B. Comp time will be provided at the rate earned, as specified in Section 8.1 of this Article. (For example, eight (8) hours worked at time and one-half (1/2) will count as twelve (12) hours of comp time; or two (2) hours worked at double time will count as four (4) hours of comp time.)
- C. An employee may accumulate a maximum of eighty (80) hours of comp time on the books at any one time (all hours in excess will be paid).
- D. Compensatory time off may be taken at a time mutually agreeable between the employee and his/her supervisor.
- E. The City reserves the right to pay off the accumulated compensatory time of any employee, at any time, at the employee's then prevailing rate.
- F. An employee must use all comp time prior to quitting unless terminated for cause by the employer.

- G. An employee may elect to cash out up to forty (40) hours of accrued unused comp time one time per year. Any employee desiring to cash out up to forty (40) hours of accrued unused comp time must notify payroll of his/her intent, in writing, by October 20th each year. The written notification will indicate the number of hours the employee wishes to cash out. The City will cash out up to forty (40) hours of accrued but unused comp time on or before the second payday in November.

8.7 Overtime and Extended Work Shifts. Employees' work shifts will ordinarily be limited to twelve (12) consecutive hours, including overtime, but may be extended to fifteen (15) consecutive hours with approval of both the supervisor and the affected employee. In the event of an emergency, employees' work shifts may be extended beyond 15 consecutive hours with approval of both the Department Director and affected employees. Employees who do not complete their regularly scheduled work shifts based on the limitations described above will have the option to make up for any unworked regular work hours using paid time off. The City will not reduce earned overtime hours to offset any unworked regular work hours

8.8 On Call Program.

- A. Covered Divisions. This agreement will apply to employees in 1) the Water Treatment Plant, 2) the Water Distribution Division, 3) the Wastewater Treatment Plant, 4) the Wastewater Collection Division and 5) the Streets and Storm Water Divisions.
- B. On-Call Status. One employee in each division will carry a designated on-call cellular telephone at all times when the division is not staffed. Employees may not carry phones for more than one division at a time. On-call assignments will be made in one-week intervals on an equal rotational basis in reverse order of Union seniority. However, employees are free to trade or give/take on-call assignments with other qualified employees provided the affected employees notify management in writing and provided any trades or changes do not result in a lack of coverage or in increased costs to the City.
1. If any conflict arises and an employee is unavailable to work an on-call assignment, the affected employee is expected to work with his or her co-workers to resolve the conflict. If the affected employee cannot voluntarily resolve the conflict, he or she must contact the crewleader who will resolve the conflict. If the crewleader cannot resolve the conflict, he or she must contact the supervisor who will resolve the conflict.

Employees who are not fully trained and/or certified to operate the plants will be ineligible to be placed in on-call status for those divisions. This includes the ACT Specialist, Sr. ACT Specialist, Pre-Treatment Specialist and Infrastructure Specialist positions. New employees will be ineligible to be placed in on-call status for the duration of their probation, but may be eligible to take on-call assignments with supervisor pre-approval once they have demonstrated appropriate qualifications.

On-call hours are considered work hours consistent with the Kennewick Administrative Code concerning Alcoholic Beverages, Drugs and Other Intoxicants (KAC 2-32-110), and the consumption, use, sale, transfer, or being under the influence of alcoholic beverages, illegal drugs or other intoxicants during on-call hours is prohibited. Employees in on-call status are expected to remain available for service at all times.

- C. Responses after an alert is first sent, employees will have a maximum of fifteen (15) minutes to acknowledge the alarm and/or make contact with the affected citizen, if applicable. After an alert is first sent, employees will have a maximum of forty-five (45) minutes to arrive on scene, if necessary. Employees who fail to respond as agreed herein may be subject to progressive discipline, if appropriate.
- D. One City vehicle per division will be made available for on-call employees. Employees are not required to use City vehicles, but the response times will remain the same whether the employee uses a City vehicle or a personal vehicle. Employees who use City vehicles will be subject to the Kennewick Administrative Code governing the use of City vehicles (KAC 2-05-045, KAC 2-05-047 and KAC 2-05-050). Employees who elect to use personal vehicles will not receive mileage or fuel reimbursements. Compensation. The City will compensate employees at the rate of five dollars (\$500) per hour for all hours the employee remains in on-call status. Employees will not receive on-call compensation while working scheduled weekend work or scheduled overtime.

When the on-call employee is called into service, the employee will cease to receive on-call status pay and will instead receive regular overtime pay (one and one half times regular base pay) with a two-hour minimum, regardless of hours actually worked. The employee will resume receiving on-call pay when work ceases. When any employee not in on-call status is called in for additional support, the compensation rates in the collective bargaining agreement will apply (see Section 8.1.2).

1. Double time exceptions:

- When the on-call employee requires the assistance of one or more additional employees who would earn double time consistent with Section 8.1.2, the on-call employee will also begin to earn double time upon the arrival of the additional employee(s) and will continue to earn double time for all hours worked alongside the additional employee(s). The on-call employee will remain entitled to a two-hour minimum at regular overtime pay but will not be entitled to a two-hour minimum at the double time rate.
- When the on-call employee is called into service on an actual holiday as defined in the CBA, the employee will receive overtime pay at the double time rate with a two-hour minimum, regardless of hours actually worked.
- When the on-call employee is called into service for a different division that has not adopted an on-call policy, the employee will receive overtime pay at the double time rate with a two-hour minimum, regardless of hours actually worked.

The parties recognize that some calls may be resolved remotely without the need to respond on site. Time spent performing remote work will be tracked in the aggregate and reported on a monthly basis. When the aggregate monthly time spent is 7 minutes 30 seconds or less, the time will be considered *de minimus* and will not be compensated at the overtime rate. However, when the aggregate monthly time spent is 7 minutes 30 seconds or more, the employee will be compensated for the actual time worked at the receive regular overtime pay (one and one half times regular base

pay) for hours actually worked.

ARTICLE 9 – PAYDAY

9.1 The City will pay employees on a bi-monthly basis. If any payday falls on a holiday, the principle that the preceding day becomes a payday shall be followed. Hours worked up to and including the last working day in the month will be paid as early as possible thereafter, but not later than the fifth (5th) day of the month following; and hours worked between the first (1st) and the fifteenth (15th) day of the month will be paid as early as possible thereafter, but no later than the twentieth (20th) day of the month.

9.2 The City may, as determined by the Finance Department, institute a bi-weekly payroll.

9.3 In the event that a weekend and/or a holiday near the end of a pay period cause payroll to have a very short period of time to produce pay checks, the deadline for submitting timesheets may be moved a few days. If the employee works overtime between the time s/he is required to submit a timesheet and the end of the pay period, the overtime will be added to the paycheck for the following pay period.

9.4 Overtime pay will be included in the paycheck for the period in which it is earned, except in circumstances described in Section 9.2 above.

ARTICLE 10 – SAFETY & CLOTHING

10.1 A Field Risk Management Committee, reporting to the City Manager, shall be established, which will have an equal number of bargaining unit employees and employees representing management. The Chairman of this Committee shall be selected from the members of the Committee. The purpose of this Committee shall be to review and make recommendations to update safety policies and procedures, with approval of the employer, regarding all employees covered by this Agreement. The Committee shall meet monthly to review safety problems brought to their attention either by management or the employees which may affect the safe and competent operations within the City. The Committee may make recommendations with regard to improving safety conditions and eliminating safety problems and hazards.

10.2 The City agrees to train certain personnel in the methods of industrial first aid as required by the General Safety and Health Standards (WAC 296.24.060) of the State of Washington. Employees required to attend industrial first aid training courses, on their own time, will be compensated for actual training time at one and one-half (1-1/2) times their regular hourly rate of pay.

10.3 The City agrees to allow employees involved in the handling of oil and other foreign substances the use of any available coveralls for such work.

10.4 The City agrees to provide all Operating Engineers with a uniform allowance in an amount not to exceed five hundred (\$500) for the purpose of purchasing City-approved uniforms, which may be used toward the purchase of an optional safety coat in lieu of the normal coat, and may use it to

be reimbursed for the purchase of required safety footwear and prescription safety glasses. Receipts may be turned in for reimbursement in February and September consistent with the existing practice for jeans reimbursement unless directed as part of City-authorized work, uniforms shall not be worn in any environment from which minors under the age of 21 are prohibited, regardless of whether the City or the employee purchased the uniform. Alcohol shall not be consumed while wearing a City uniform. All employees are expected and required to report to work on a daily basis wearing the uniform provided by the City of Kennewick. Uniforms should be clean and neat in appearance, and may bear the City logo and, or the name of the employee on the front. No outerwear shall be allowed except approved safety clothing or outerwear provided by the clothing allowance. The City has the sole discretion to require the logo and, or name of the employee to be visible to the general public.

Clothing will be replaced annually on a fair wear-and-tear basis as determined by the City. Employees are responsible for knowing and understanding the terms of the clothing provisions of this Agreement, and must abide by them as a condition of employment. Any employee who is out of compliance with the clothing provisions of this Agreement, other than through a City-requested emergency response, shall be sent home without pay to make the appropriate changes to the uniform.

10.5 Uniform Standards:

A. Standard Clothing List:

- Uniform pants – dark blue
- Blue jeans
- Blue work shirts with City logo and employee's first or last name
- Uniform shorts – dark blue in non-safety sensitive areas as approved by supervisor
- Dark blue T-shirts with City logo and employee name
- Grey (flecked) T-shirts with City logo and employee name
- Safety orange T-shirts with City logo and employee name
- Employees may purchase at their own expense dark blue sweatshirts with City logo and employee name (logo and name must be put on by City-designated screen printer to ensure consistency)
- Parka with City logo and employee name – dark blue and/or class III safety
- Hooded dark blue sweatshirts with City logo and employee name
- Raingear – yellow
- Insulated jacket in dark blue and/or class III flight jacket with City logo and employee
- Insulated bib overalls in dark blue cover
- Insulated vests in navy dark blue color with City logo and employee name
- Required safety footwear as identified in the Kennewick Administrative Code.

B. An employee listing shall be made available for tracking dollar amount spent/available.

C. Divisional or departmental logos are not appropriate. Clothing must have the City of Kennewick logo.

D. Jeans will be purchased by the employees who wish to wear them, and receipts shall be turned in to the employee's supervisor for reimbursement. A maximum of six (6) pairs of jeans can be ordered annually. Jean receipts may be turned in for reimbursement two (2) times annually: February and September. An invoice shall be entered for all reimbursements; the original receipt shall be sent to Accounts Payable and shall include

the following: employee name, quantity, item purchased, total amount.

- E. A clothing price list shall be maintained by Purchasing which will include current pricing and vendor(s) for the standard clothing items. Orders for clothing may be submitted to Purchasing two (2) times annually: February and September. Reimbursement shall occur within 30 days. Exceptions include new hires and replacements for damaged and/or contaminated clothing. Orders shall be placed using a requisition and shall include the following information: employee name, quantity, style/catalog number, sizing, and current price. Manufacturing error returns shall be made within five (5) working days of receipt of the clothing by the employee.
- F. Hats: Employees wishing to wear hats shall wear only City-issued hats. These hats shall be stocked in the central warehouse and bear the City logo. Hats shall be available to employees at no cost. An initial complement of not more than four (4) hats will be issued to all employees who wear hats, and worn hats will be replaced on an as-needed basis. Employees will be allowed to display a pin of the American Flag on the hat.

10.6 Clothing for New Hires: New employees will receive the first half of their initial uniform allotment upon hire, and will receive the second half of their initial uniform allotment after six months provided they receive a satisfactory six-month performance evaluation. New employees who do not receive a satisfactory six-month performance evaluation will receive the second half of their uniform allotment upon successful completion of their probationary period.

Safety clothing and T-shirts are in addition to the uniform complement of clothing and may be substituted for like items, but not in addition to the initial one-half and full complements.

- A. The first half of the new hire uniform complement shall consist of 3 work shirts, 3 pairs of pants, 1 insulated bib overalls, 1 detachable hood, 1 lightweight jacket, 1 jacket liner, 1 polar coat, and 1 hooded sweatshirt.
- B. A full new hire uniform complement shall consist of 6 work shirts, 6 pairs of pants, 2 insulated bib coveralls, 2 lightweight jackets with liner, 1 set of raingear, 1 insulated vest, 1 polar coat, and 1 hooded sweatshirt.

10.7 The City will provide employees with one safety vest and one pair of safety coveralls for night and/or right-of-way work on an as-needed basis at the supervisor's discretion. The City will exchange worn-out safety vests and safety coveralls on an as-needed basis.

ARTICLE 11 – RELIEF FROM DUTY

11.1 Employees relieved from duty because of lack of work or other related reasons, as determined by the City, during the first half of a standard shift shall receive not less than one-half (1/2) day's pay. If relieved after having been on duty more than one-half (1/2) day, the employee shall then receive a full day's pay. This clause will not apply to employees relieved from duty due to disciplinary action.

11.2 Article 11 shall not apply where Article 8 of this Agreement is involved, or in the case of a bona fide emergency.

ARTICLE 12 – TEMPORARY UPGRADE: TEMPORARY ASSIGNMENT

12.1 For purposes of this Agreement, a temporary upgrade is defined as an appointment to an upgraded position lasting five (5) days, or forty (40) hours, or less. There is no expectation that the same employee will remain in upgrade status for the duration of a temporary upgrade. A

temporary assignment is distinguished from a temporary upgrade in that its duration is more than 5 days or 40 hours. The same employee will remain in upgrade status for the duration of the appointment when appointed to a temporary assignment.

12.2 An employee covered by this Agreement becomes eligible for upgrade opportunities after he/she has time-in-grade (completed probationary period). Upon the initial upgrade to a higher classification covered by this Agreement, the employee will receive a five (5) percent specialty pay above their base hourly wage rate. . It is understood that employees covered by this collective bargaining agreement temporarily acting in a non-bargaining unit capacity are covered by the terms of this entire Agreement.

12.3 Crewleader Upgrade. Qualified employees of the bargaining unit will be upgraded to the highest crewleader positions when:

- A. The regular lead is absent from work or duty two (2) or more consecutive hours during the regular work hours and days, and the absence meets the qualification for upgrade as described in paragraph B below. During such periods of upgrade, the employee may be called upon to make upper level decisions associated with his/her division. In the event that an employee is upgraded after the two-hour window, pay for purposes of upgrade will include the first two hours the regular crewleader was absent from duty. The upgrade will continue until the regular crewleader returns to his/her regular crewleader duties.
- B. Crewleaders attending mandatory safety or other related mandatory training will not be interrupted during periods of such training. Training that is not of a safety sensitive nature, including regular safety meetings, will not necessarily cause upgrades of other bargaining unit personnel unless authorized by management.
- C. Only qualified employees having five (5) or more years of seniority with the City will be considered for upgrades to crewleader, although the City reserves the right to use less senior employees when there is no qualified individual with such seniority available.
- D. Upgrade pay for employees upgraded to crewleader, or lead plant operator will be ten percent (10%) above their base hourly wage rate.

ARTICLE 13 – MEDICAL LEAVE

13.1 Upon application of a probationary or regular employee, a medical leave of absence without pay may be granted by the appointing authority for the entire period of disability because of sickness or injury for a maximum of one year. In order to qualify for medical leave without pay, an employee must first use all of his/her accrued PTO. Such leave need not be limited to one (1) year, but the appointing authority from time to time may require that the employee submit a certificate from the attending physician or a designated physician. For a new hire probationary employee, such time granted will be added to the probationary period. (For special probationary employees, see Article 23.)

ARTICLE 14 – SICK LEAVE

14.1 Grandfathered Sick Leave. Effective January 1, 2017, each employee will have his or her accumulated and unused sick leave (up to 1,152 hours) placed in an inactive sick leave bank. Employees may use their sick leave bank for scheduled preventative health and dental appointments and for eligible unscheduled absences due to illness or injury instead of PTO until the inactive sick leave bank is depleted. The sick leave bank shall not accumulate any additional hours of sick leave.

14.2 Grandfathered Sick Leave Cash Out.

- A. Employees hired between March 18, 1987 and March 2, 1999: Upon separation from employment, except for just cause or resignation in lieu of termination, each employee will receive twenty-five percent (25%) of his/her accumulated and unused sick leave converted to and added to any other accrued leave subject to the following conditions:
 - The employee must have been a full-time employee of the City for at least five (5) years to receive any cash-out;
 - The payout shall be based on a maximum accrual of eight hundred thirty-two (832) hours; and
 - The maximum value of such conversion shall not exceed \$3,000.00.
- B. Employees hired after March 2, 1999 shall not be eligible for sick leave cash-out at termination.

ARTICLE 15 – MEDICAL, LIFE & DENTAL INSURANCE

15.1 Employees will have an option to choose between the Asuris HealthFirst \$250 deductible plan or the Kaiser HMO plan for health insurance coverage. Employees will contribute an amount equal to 10% of the cost of their selected plans (single, married or married with dependents) toward their health insurance premiums. Employee contributions toward their health insurance premiums will be deducted from employee paychecks each pay period on a pre-tax basis (both FICA and FIT) unless an employee specifically opts to have them made on a post-tax basis. Employees who decline health insurance benefits for themselves or their families because they have alternate insurance coverage will be eligible for a financial incentive under the same terms and conditions as non-contract employees.

15.2 The City shall provide life insurance for employees and dependents and shall pay the entire premium for this coverage.

15.3 The City shall provide dental insurance through the carrier of its choice for the duration of this Agreement.

15.4 The parties agree that the Association of Washington Cities Trust controls the plan design. The parties agree that changes to the plan may occur occasionally.

15.5 The City will provide an employee assistance plan (EAP) which the City can unilaterally modify, discontinue, or change providers at any time.

15.6 The City shall pay the full premium of a long-term disability (LTD) insurance program.

15.7 Union members agree to actively participate in the City's Wellness Program.

ARTICLE 16 – ACCIDENT LEAVE

16.1 In the case of a disability which is covered by State Industrial Insurance or Workman's Compensation for the City of Kennewick, the City will pay to such disabled employee an occupational disability allowance equal to his/her regular straight time wages for the period of time in which the employee has sick leave benefits, or in lieu of sick leave the employee may elect to receive State Workman's Compensation at the time he/she has exhausted his/her sick leave benefits.

ARTICLE 17 – HOLIDAYS

17.1 The following, and such other days as the City Council by ordinance may fix, are official paid holidays for all regular employees of the City who are covered by this Agreement:

1. New Year's Day – January 1
2. Martin Luther King's Birthday – Third Monday in January
3. Washington's Birthday – Third Monday in February
4. Memorial Day – Last Monday of May
5. Independence Day – July 4
6. Labor Day – First Monday in September
7. Veteran's Day – November 11
8. Thanksgiving Day – Fourth Thursday in November
9. The day after Thanksgiving Day
10. Christmas Day – December 25
11. One floating holiday in lieu of Lincoln's birthday accrued on February 12. Employees must be in a paid status on February 12 in order to accrue this floating holiday.
12. One floating holiday to be selected by the employee in cooperation with the employer.

When any of these holidays fall on a Saturday, the Friday immediately preceding such holiday shall be observed as a holiday. When any of these holidays fall on a Sunday, the Monday immediately following shall be observed as a holiday.

17.2 Holidays observed during an employee's PTO shall not be counted as PTO taken.

17.3 The floating holiday identified as number 12 in Section 17.1 shall accrue on February 1. Employees in a paid status between January 1 and June 30 shall receive 8 hours of floating holiday. Employees hired after June 30 shall not receive the floating holiday in that year. However, such employees shall be entitled to a floating holiday as mandated by state law, in successive years, provided service is not broken.

Employees have the option to utilize earned floating holiday(s) to care for themselves, child(ren), or a seriously ill family member, including spouse, parents, parents-in-law, grandparents, and adult child(ren) with disabilities, as provided in RCW 49.12.265, RCW 49.12.295.

17.4 When the City mandates a 10-hour shift, then during the week the mandated ten-hour shift is in effect in which there is also a scheduled holiday (exclusive of floating holidays), the employee shall receive ten (10) hours for each said holiday that may fall within that week. The City may reschedule the shift during the week of the holiday(s) to a standard eight (8) hour per day shift, in which case the employee shall only be entitled to eight (8) hours of holiday pay for each scheduled holiday during that week. Should the City elect to shift to an eight (8)-hour daily shift during the holiday week, the employee(s) may request to remain on the 10-hour shift during that week. If approved by the City, the employee(s) shall then be paid 8 hours holiday pay for each holiday in the week, and will also be required to claim two (2) hours of either accrued PTO, compensatory time, or unpaid leave on each holiday to make up the total 10 hours off for each holiday.

Where the employees voluntarily accept ten (10)hour work days (including other alternative shifts such as 8-9s), and when approved by the City, the employees shall be paid eight (8) hours of holiday pay for each holiday, and will also be required to use two (2) hours of accrued PTO or

compensatory time to make up the difference. The City may elect to shift back to an eight (8)-hour work day during the holiday week if it determines doing so is in the best interest of the City.

ARTICLE 18 – PAID TIME OFF

18.1 PTO Accrual Rate. Full-time employees will accrue PTO hours as follows:

<u>Years of Service</u>	<u>Accrual Rate (per month)</u>
Start of year 1 through 5 years	12 hours
Start of year 6 through 9 years	15 hours
Start of year 10 through 14 years	17 hours
Start of year 15 through 19 years	19 hours
Start of year 20 through 24 years	21 hours
Start of year 25 through 29 years	23 hours
More than 30 years of service	25 hours

Employees will not accrue any PTO hours during periods of leave without pay.

18.2 Annual PTO Carryover and Cashout Limit. Employees have an annual PTO carryover limit of six hundred and forty (640) hours. For the purpose of this annual carryover, the City defines the year as April 1 through March 31. Employees will lose any PTO hours in excess of six hundred and forty (640) hours at the end of the March 31 pay period every year.

Upon separation from employment, employees will be compensated for accumulated and unused PTO hours as follows:

0 through 9 years	300 hours
10 through 19 years	400 hours
20 through 29 years	500 hours
30+ years of service	600 hours

Accumulated and unused PTO hours will be compensated at the employee's straight time base rate of pay.

18.3 Authorized Uses. PTO hours are either Scheduled or Unscheduled.

- A. Scheduled. Scheduled use occurs when an employee requests and obtains crewleader or supervisor approval to use PTO hours. Requests for scheduled PTO must be submitted at least two (2) weeks in advance. However, depending on the workload of the unit, the crewleader or supervisor may waive all or part of the two (2) week advance notice requirement. Once scheduled PTO has been approved, it may not be changed except for reasons authorized by the Department Director or Manager.

Procedure. PTO will be scheduled by the Department Director at times when they will constitute minimum conflicts with work schedules. PTO will be scheduled by seniority and classification through March 31 of each calendar year. Any request for PTO after March 31 will be on a first-come, first-served basis. Reasonable consideration will be given to allowing full-time employees summer vacations.

B. **Unscheduled.** Unscheduled use occurs when an employee is unable to request and obtain crewleader or supervisor approval to use PTO hours. Unscheduled uses of PTO must be compelling and of an emergency and/or urgent nature. Preventative health and dental appointments are not considered acceptable unscheduled uses and time off must be requested and approved in advance in accordance with the provisions for scheduled uses above. An employee who is unable to report to work due to an unscheduled absence must contact their crewleader or supervisor in accordance with department/division policy, or absent such a policy, within 30 minutes of the beginning of their scheduled work shift.

1. Examples of unscheduled uses of PTO:

- i. **Personal Sick.** Unscheduled PTO is available for employees who need to take leave for non-work related personal illness or injury.
 - ii. **Work Related Illness or Injury.** While not intended for work-related injuries, employees may elect to use scheduled PTO or grandfathered sick leave to cover the first three days of absence due to an industrial injury. Such use is not permitted when income benefits are available for this time period. In addition, employees may use scheduled PTO for follow-up medical appointments related to an industrial injury, or to make up differences between state mandated benefits and regular pay.
 - iii. **Family Sick.** Unscheduled PTO is available when employees are required to provide temporary assistance in situations where injury or illness of an immediate family member prevents them from coming to work. Immediate family members include spouse; child (includes step, adopted, natural or adult child) or grandchild (includes step, adopted or natural); parent (includes step, adoptive or natural), guardian or grandparent; sibling (step, natural or adopted); or in-laws (includes parent-in-law, son-in-law and daughter-in-law). It does not include uncle, aunt, niece, nephew or cousin.
2. **Documentation.** If absence due to illness or injury extends beyond three (3) working days' duration, or if a pattern or unscheduled absenteeism due to illness or injury exists, the employee may be required, at the option of the Department Director, to submit a medical certification signed by a physician stating the nature of the illness or injury; that the employee has been incapacitated from work for the period of the absence; and that the employee is once again physically able to perform his or her duties.
3. **Medical Evaluation.** The City may require a medical evaluation or nursing visit if the City deems it so desirable. The expense of such medical examination or nursing visit shall be paid by the City.

C. Employees will only be compensated for utilizing leave which meets one of the above definitions. Absences not meeting one of the above definitions will be considered unexcused absences and may result in disciplinary action.

18.4 Attendance Standards. The City of Kennewick expects regular attendance from all employees. Excessive unscheduled absenteeism affects performance both of the individual and the broader organization in many ways: lack of availability for customers and clients; lost productivity; missed deadlines or deliverables; impact on other employees' deliverables, productivity or morale; added payroll and overtime costs.

- A. 2% Guideline. Based on national statistics, the City considers unscheduled absenteeism exceeding two percent (2%) of scheduled shifts (or hours) over a rolling annual period (approximately 40 hours for a full time employee) to be outside the normal range. Accordingly, unscheduled absenteeism above two percent (2%) may lead to coaching and/or discipline. This guideline applies to scheduled overtime as well as regular shifts.
- B. Unscheduled absenteeism will be monitored against the two percent (2%) guideline for all employees. An employee's job may be jeopardized by frequent or prolonged absences from work. Employees are expected to discuss with their crewleader or supervisor any circumstance that will affect their ongoing attendance. In some cases, this may suggest the need for adjusted work hours, change in pay status, part-time status, or leave of absence.
- C. Failing to report to work or reporting late without notifying a crewleader or supervisor within 30 minutes of the beginning of their scheduled work shift may result in discipline regardless of whether the absences exceed two percent.
- D. Relation to PTO. The availability of PTO for an absence does not mean that the absence will not be considered toward excessive absenteeism. An employee may receive compensation for using PTO which could also subject the employee to counseling or discipline for excessive absences.
- E. Protected Leave. Protected leaves includes leave authorized by federal or state law, including the Family & Medical Leave Act (FMLA), Washington Family Care Act (WFCA) and other applicable pregnancy leave and military leave statutes. An employee may not be subject to discipline for exercising his or her right to protected leave. Therefore, any protected leave for which the employee has provided appropriate notice and documentation will not count toward the two percent (2%) guideline defined above.
- F. FMLA. In the case of a serious injury or illness, employees will make application for leave under the FMLA no later than fifteen (15) work days in the case of a personal illness or injury and no later than five (5) work days in the case of an immediate family member's illness or injury. The first fifteen (15) or five (5) days, respectively, may be excluded from the amount of leave authorized by the FMLA at the employee's discretion. When an employee is absent due to an immediate family member's illness or injury, the employee will report back to work as promptly as possible.

18.5 Bereavement Leave. Employees will receive three days of bereavement leave with pay for a death in the immediate family. For the purpose of this policy, immediate family includes:

- Spouse or domestic partner;
- Children, including adopted children, step children, and children-in-law;
- Parents, including adoptive parents, step parents, parents-in-law, and legal guardians;
- Grandparents, including parents of step parents and adoptive parents; and
- Siblings, including step siblings and siblings-in-law.

Employees may request to use accrued paid time off if they need additional time away from work, or if they need time away from work related to a non-covered individual.

ARTICLE 19 – JURY DUTY

19.1 Employees under this Agreement who lose work because of absence on jury duty will be paid the difference between the regular straight time earnings which would otherwise have been received and their reimbursement as jurors, exclusive of mileage reimbursement, up to a maximum of eight (8) hours for each day. Provided, however, an employee may elect to fulfill such a call or subpoena on accrued PTO and retain the full amount received for such services. The employee shall report promptly to work if he/she is excused from jury duty or witness service during the work day.

ARTICLE 20 – FORCE REDUCTIONS AND REHIRE

20.1 Employees laid off due to force reduction will retain their established seniority for two (2) years. Seniority shall be considered broken if an employee is offered re-employment within two (2) years of layoff and he/she refuses the same.

The City shall notify, by certified mail to the employee's last known address, the employees on laid off status of any bargaining unit job opening the employee is qualified to fill. Upon notification, the employee must accept or reject the open position within fourteen (14) calendar days of receipt of the City's notice, regardless of who signed for the certified notice, and report to work within fourteen (14) calendar days after giving notification to the City. Failure to do so will result in forfeiture of all recall rights.

20.2 An employee who is laid off pursuant to this Article may elect to cash out accumulated and unused grandfathered sick leave pursuant to Section 14.2, or may allow the accumulation to remain on the records in anticipation of being recalled. If sick leave is cashed out accordingly and the employee is later recalled, the employee shall have no accumulated grandfathered bank of sick leave. However, if the employee is not recalled within two (2) years of layoff, the City shall cash out accumulated and unused sick leave in accordance with Section 14.2 at the hourly rates in effect at the time of layoff.

20.3 If an employee has cashed out accumulated and unused grandfathered sick leave pursuant to this Article and is later recalled, the employee may later only cash out accumulated and unused grandfathered sick leave in excess of what had previously been cashed out.

20.4 Employees who have been laid off, who wish to return to work, shall keep the City advised of their current address.

20.5 Laid off employees rehired within two years of layoff shall have their previous service credit for time worked carried forward for purposes of determining seniority and PTO accrual rates.

ARTICLE 21 TRANSFERS

21.1 When an employee is transferred to any position in which he/she has no previous experience, he/she shall be given a reasonable break-in period with an experienced person in the position.

ARTICLE 22 – LEAVE OF ABSENCE

22.1 The City Manager may authorize unpaid leaves of absence up to a maximum duration of one (1) year, except in the case of a leave necessitated by involuntary conscription or recall to duty in the Armed Forces of the United States, in which case the leave may extend to cover the full period of conscription or recall. Upon expiration of such approved leave, the employee shall be reinstated in the position agreed to in the leave approval at the time the leave was granted. Failure on the part of the employee to report for duty promptly at the expiration of such leave shall be regarded as voluntary resignation.

22.2 Upon expiration of an approved leave of absence or sick leave, an employee shall be reinstated in the position held at the time the leave was granted. Only the employee(s) advanced to fill the temporary vacancies created by the leave of absence shall be affected, and in such case, shall return to the jobs they left. Employees who are granted leave of absence shall not lose their established seniority.

22.3 Unless absent due to a work-related injury, employees will not continue to accumulate seniority during periods of unpaid leaves of absence.

ARTICLE 23 – SENIORITY

23.1 Employees shall have their seniority determined by their total length of continuous full-time service within the bargaining unit. In the case where two (2) or more employees start work on the same date, the date of application for employment shall establish the position on the seniority list.

23.2 Any regular employee who transfers or is promoted becomes a special probationary employee upon the date of the transfer or promotion. An employee who transfers to another position shall serve a three (3) month probationary period; an employee who is promoted shall serve a six (6) month probationary period. This special probationary period may be adjusted upward to properly allow for any authorized leaves of absence or other approved breaks in service.

If the special probationary employee fails to demonstrate that he/she can completely and satisfactorily perform the job within the prescribed special probationary period, the City may retain the employee at his/her present position, or at its discretion, return the employee to his/her former position classification, without any loss in seniority. Any other employees who transferred or were promoted following, and as a result of this employee's transfer or promotion, shall also be returned to their former position and pay status. The special probationary employee may voluntarily move back to his/her former position within the applicable probationary period. This request must be made in writing and approved by the City and Union before the employee is permitted to return. Any other employees who transferred or were promoted following, and as a result of this employee's transfer or promotion, shall also be returned to their former position and pay status.

23.3 All qualified regular full-time and part-time City employees may apply for job openings within the divisions covered by this Agreement (this does not include seasonal or temporary personnel).

The application process for all upgrade positions, except those in a divisional lead role, including but not limited to Crewleader and Sr. Signal Electrician, shall be as follows:

- An evaluation of the employee's job application. The application must be fully completed and must demonstrate the employee's knowledge, skills and abilities, as well as the employee's ability to meet the minimum qualifications as set forth in the job description for the position for which the employee is applying. This portion shall be worth 25 points.
- A combination of tests, written and/or demonstrative, relevant to the position for which the employee is applying. The employee must obtain a score of 70% or greater on each component. At least one union representative will be present to observe any demonstrative test in order to ensure consistency. This portion will be worth 45 points.
- An oral interview. The employee must obtain a consensus score of 70% or greater based upon a standardized set of questions, including individualized follow-up. At least one union representative will be included on the interview panel. This portion will be worth 30 points.
- A review of the employee's personnel file. The employee's personnel file must demonstrate a satisfactory work history. Poor performance evaluations and/or formal discipline issued within 24 months of application may disqualify an employee. However, an employee will be entitled to address such issues with the hiring manager and/or Human Resources Director prior to disqualification. This portion will be worth 20 points.
- Seniority points. The employee will receive one (1) seniority point for each consecutive year of service to the City (total months divided by twelve), not to exceed 10 points.

Following City selection of a candidate for promotion, disqualified employee(s) may question the candidate selection before the Union Stewards organization within ten (10) days of the selection. The Union Stewards will determine the merit of the complaint and whether a sufficient basis exists to register a formal grievance with the City. Such issues shall be subject to the grievance and arbitration procedures as outlined in Article 6 of this Agreement.

23.4 The City will post bid jobs prior to probable openings. Employees shall have an opportunity to apply, and the selection process will commence based on Section 23.3 of this Agreement. The posting shall identify the initial location and initial shift of the assignment.

23.5 In the event an employee covered under this Agreement is promoted into a supervisory position not covered by this Agreement, he/she shall continue to earn seniority in the classification from which he was promoted. In the event the employee is later demoted to a lower classification and/or position, his/her latest earned seniority shall be compared with the employee(s) currently occupying the classification and/or position to determine who shall fill such position.

23.6 Actual job performance, skills, abilities, training, and experience shall be considered in any decision to determine upgrades on a temporary basis. If the qualifications of bargaining unit employees are relatively equal, seniority within the bargaining unit shall govern.

ARTICLE 24 – JOB-REQUIRED LICENSES AND CERTIFICATIONS

24.1 The City maintains authority to require job related certification(s) in each classification. The type of certification is at the discretion of the City's choosing. The City shall pay two attempts by each employee to pass approved / required certification exam (excluding CDL requirements).

- a. An employee, who fails to pass a certification exam after a second attempt, will be responsible for the costs and associated time (by utilizing PTO) with any future training and attempt to pass that exam.
- b. The City shall provide training for employees to accumulate continuing education units required to maintain approved / required certifications. If any training / education requirement is only available out of town, the City shall cover the cost of training and comply with all governing laws regarding travel and lodging requirements.
- c. Employees required to obtain a commercial driver's license (CDL) may be permitted to use appropriate City vehicles provided they first obtain a CDL learner's permit.

24.2 Employees who fail to obtain job-required certification by the deadline established in the job offer letter but within the following sixty (60) days will have the duration of their current salary step extended by six months. Employees who fail to obtain job-required certification more than sixty (60) days after the deadline established in the job offer letter will be separated from employment.

24.3 Employees will maintain job-required or other approved certification, including any required continued education, during working hours and at the City's expense. This includes the costs of CDL medical exams and costs of licensing exceeding the costs of non-commercial driver's licenses.

24.4 Employees, who earn job-related certifications and subsequently transfer to another division within the bargaining unit, may be permitted to maintain certification upon Director approval based on business needs, including any required continued education, during work hours and at the City's expense.

24.5 City of Kennewick employees who possess a CDL agree to be bound by all state and federal laws and regulations that govern acquisition, maintenance, and disqualification of a commercial driver's license, including but not limited to RCW 46.25.090 as contained in Kennewick Administrative Code (KAC) 2-200-050. The City and the Union will both make good faith efforts to explore alternate possibilities for individuals unable to maintain a CDL due to medical exclusions. Each case will be evaluated based on the position, needs of the City, and the affect movement may create on other employees. In the event where all alternate possibilities puts a hardship on the City, the City reserves the right to terminate the individuals' employment.

24.6 Effective January 1, 2017, employees may use the tuition reimbursement program to seek reimbursement of CDL driving school tuition expenses relating to obtaining or upgrading a CDL as a condition of employment. Employees are eligible to receive a lifetime total of seven-hundred and fifty dollars (\$750.00) toward tuition reimbursement during the course of their employment with the City.

ARTICLE 25 – AFFIRMATIVE ACTION

25.1 The City of Kennewick's Affirmative Action Plan shall be made, in its entirety, a part of this Agreement by reference. The Union and the City will cooperate to ensure that its goals and objectives are met in as much as possible and practical.

ARTICLE 26 – ENTIRE AGREEMENT CLAUSE

26.1 This Agreement, as expressed in writing, constitutes the entire Agreement between the parties, and no oral statements shall add to or supersede any of its provisions.

26.2 The parties acknowledge that each has had unlimited right and opportunity to make demands and proposals with respect to any matter deemed a proper subject for collective bargaining, and the results of the exercise of that right are set forth in this Agreement.

ARTICLE 27 – SAVINGS CLAUSE

27.1 Should any Article, Section, or portion thereof, of this Agreement be held unlawful and unenforceable by a state statute, federal statute, or any court of competent jurisdiction, such decision shall apply only to the specified Article, Section, or portion thereof directly specified in the decision, and all other provisions shall remain in full force and effect.

ARTICLE 28 – DRUGFREE WORKPLACE

28.1 The Union and City understand the importance of maintaining a drug and alcohol free workplace. Employees under this collective bargaining agreement shall comply with the City's Drugfree Workplace Policy, and those DOT-covered employees possessing and utilizing CDLs for City business will be subject to random and reasonable suspicion drug testing in accordance with the City's Drug and Alcohol Testing Policy.

DATED AT KENNEWICK, WASHINGTON this 05 day of November 2024.

INTERNATIONAL UNION OF
OPERATING ENGINEERS,
LOCAL NO. 280

CITY OF KENNEWICK,
WASHINGTON

BUSINESS MANAGER

Mayor

BUSINESS REPRESENTATIVE

CITY MANAGER

ATTEST: CITY CLERK

EXHIBIT "A"

January 1, 2025 – The City will implement the attached salary schedule (Exhibit A) with no additional increase to base wages.

January 1, 2026 – The City will increase base wages by 100% of CPI-U, All-Cities (July-July), with a minimum of 3% and maximum of 4%.

January 1, 2027 – The City will increase base wages by 100% of CPI-U, All-Cities (July-July), with a minimum of 3% and maximum of 4%.

January 1, 2028 – The City will increase base wages by 100% of CPI-U, All-Cities (July-July), with a minimum of 3% and maximum of 4%

Grounds M&CCs employed prior to January 1, 2022 who were required to obtain a CDL as a condition of employment and who continue to maintain a CDL will receive an additional \$0.44/hour in pay for the duration of their employment as Parks M&CCs.

An employee promoted to a position in a higher range shall be advanced to the first step in that range which provides a wage increase.

The City will authorize specialty pay in the amount of \$1.00 per hour for hours spent by employees actively engaged in waste pond work. This applies to time spent by employees in the boats in the City's lagoon or HRTs.

2025 IUOE Wage Scale

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
M&C Craftworker - Grounds	27.44	28.54	29.67	30.87	32.11	32.74
M&C Craftworker - Grounds (Grandfathered)	27.89	28.99	30.13	31.32	32.56	33.20
M&C Craftworker - Construction	28.26	29.39	30.57	31.78	33.05	33.71
General Craftworker Grounds	33.25	34.26	35.29	36.33	37.43	38.55
General Craftworker Construction	33.73	34.76	35.80	36.86	37.98	39.11
Mechanic I	33.53	34.21	34.89	35.59	36.29	37.02
Mechanic II	35.16	35.87	36.58	37.32	38.07	38.82
Mechanic III	36.80	37.53	38.29	39.05	39.83	40.62
Crewleader - Lead Mechanic	37.88	38.65	39.43	40.20	41.00	41.83
Crewleader - Grounds	37.88	38.65	39.43	40.20	41.00	41.83
Crewleader - Constuction	38.44	39.21	40.00	40.79	41.60	42.44
Plant Operator Level II	35.02	35.73	36.44	37.16	37.90	38.67
Plant Operator Level III	37.26	38.01	38.75	39.55	40.33	41.14
Plant Operator Level IV	39.57	40.36	41.17	41.99	42.83	43.68
Lead Plant Operator	43.01	43.86	44.74	45.64	46.56	47.48
Signal Technician	39.32	40.09	40.90	41.71	42.56	43.41
Signal Electrician / ACT Specialist	44.72	45.63	46.53	47.46	48.42	49.38
Sr. Signal Electrician / Sr. ACT Specialist	49.58	50.57	51.59	52.61	53.66	54.74

COLLECTIVE BARGAINING AGREEMENT

Between

CITY OF KENNEWICK

and

INTERNATIONAL UNION OF OPERATING
ENGINEERS

January 1, 2025~~22~~ – December 31, 2028~~24~~

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20~~25~~22-20~~28~~24
COLLECTIVE BARGAINING AGREEMENT
BETWEEN THE
CITY OF KENNEWICK and
LOCAL UNION NO. 280
INTERNATIONAL UNION OF OPERATING ENGINEERS

THIS AGREEMENT is made and entered into by and between the CITY OF KENNEWICK, WASHINGTON, serving the Water, Wastewater, Equipment Rental, Parks, Facilities, Streets, Storm Water, and Traffic Divisions, hereinafter called the "City," and LOCAL #280 of the INTERNATIONAL UNION OF OPERATING ENGINEERS, hereinafter called the "Union."

WITNESSETH: The City and the Union recognize that harmonious relations should be maintained between them and with the public. All will benefit by continuous peace and by adjusting any differences which may arise by rational common sense methods. Since it is unlawful to strike against the government, we therefore give our unequivocal pledge that the Union will neither initiate, support, nor condone a strike against the City of Kennewick. Provided however, except for emergencies, employees shall not be required to cross a legally sanctioned (as AFL-CIO sanctioned) picket line against another employer, but in such cases, the City may perform the work by contract or by supervisors.

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ARTICLE 1 – TERM AND SCOPE OF AGREEMENT

1.1 This Agreement shall be and hereby does become effective January 1, ~~2025 2022~~, and shall remain in full force and effect up to and including December 31, ~~2028 2024~~. If either party desires to amend this contract, they shall give written notice of such intentions to the other party no later than June 30, ~~2028 2024~~. The proposed changes, which shall constitute the subject of negotiations for amendment, shall accompany such notice of intention to enter into negotiations for amendment. Any changes or modifications mutually agreed to by the parties shall become effective January 1, ~~2025 2022~~, or later, if mutually agreed upon by the parties, and shall not be retroactive.

1.2 It is understood and agreed that if, during the term of this Agreement, mandatory laws applicable to and in conflict with any of the provisions hereof shall become effective and thereafter govern the parties in respect to such conflicting provisions, then and in that event this Agreement shall be subject to revisions by mutual agreement of the parties hereto, covering the changes in the provisions which conflict.

ARTICLE 2 – UNION MEMBERSHIP

2.1 The City hereby recognizes Local 280 as the exclusive bargaining representative for the purposes stated in Chapter 41.56 RCW of all regular full-time employees employed within the bargaining unit and job classifications listed in this Agreement. The foregoing provisions shall not be construed as denying the City the right to select any new employee. Further, the City shall have the right to select and/or retain any supervisory employee. The foregoing provisions shall not be construed as denying the City the right to select any new employee. Further, the City shall have the right to select and/or retain any supervisory employee. Further, nothing contained in this Section shall be construed to apply to part-time employees or to temporary employees with less than thirty (30) days of continuous employment.

2.2 The City will deduct membership dues and pay to Local #280 from the wages of all employees who, in writing, have authorized the City to do so, and will submit a monthly accounting of such deduction, giving the amount deducted opposite the employee's name, as long as such assignment is not revoked or beyond the termination of this Agreement, whichever first occurs. The International Union of Operating Engineers, Local #280, agrees to indemnify and hold the City harmless against any claims, suits, order or judgments brought and issued against the City as a result of any action taken or not taken by the City on account of a payroll deduction of Union dues.

2.3 The City shall furnish bulletin board space for the use of the Union for posting Union announcements and data. Notices or bulletins which the Union intends to have posted will be routed by the Union through the City Manager's Office for approval, which will not be unreasonably withheld. The City shall have no responsibility for the content of material posted on the bulletin board.

ARTICLE 3 – CLASSIFICATIONS

3.1 The classification and wage rates for all full-time employees of the City covered by this Agreement and eligible for Union membership shall be listed in Exhibit “A”, attached hereto. A newly-hired employee shall be considered a probationary employee for a period of twelve (12) calendar months, during which time he/she will acquire no seniority credit. However, upon successfully completing the probationary period, that person shall be considered a regular employee, and he/she shall have his/her seniority established as of his/her date of hire as a probationary full-time employee. New hires shall receive a performance review at the end of six (6) months. Probationary employees receiving satisfactory six-month performance reviews shall be allowed to progress in the salary schedule. ~~Probationary employees, including new hires, are not eligible to bid on any job vacancies, including both promotional and lateral transfer opportunities, as part of an internal recruitment process unless they meet one or more of the following criteria:~~

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- ~~• The employee currently holds all required certifications, including a CDL if applicable, for the position for which the employee is applying; or~~
- ~~• The employee is able to obtain all required certifications, including a CDL if applicable, for the position for which the employee is applying within ninety (90) days of appointment; or~~
- ~~• The employee possesses unique qualifications or work experience relevant to the position for which the employee is applying.~~

~~Probationary employees who do not meet the above criteria may apply for job vacancies as part of the external recruitment process, and will not lose seniority if selected.~~

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During the first twelve (12) months of probation the City reserves the right to terminate the probationary employee with or without cause. The Union may represent probationary employees during the probationary period, except that newly-hired probationary employees may be discharged at any time without cause and without the right of appeal under the terms of the contract.

When it is found necessary to add new classifications to this Agreement, the City Manager or his/her representative and the Union shall meet to reach an agreement on wages and conditions for said new classifications. Said agreement shall be subject to approval by the City Council. The City reserves the right to determine if and when newly created vacant positions will be filled.

ARTICLE 4 – EMPLOYER RIGHTS

4.1 Subject only to the express limitations stated in this Agreement, or in any other agreement between the employer and the Union, it is agreed that the customary and usual rights, powers, functions, responsibilities and authority of management are vested in management officials of the City, and are not subject to appeal through the grievance procedure unless otherwise expressly provided by the terms of this Agreement. Included in these rights in accordance with applicable laws and regulations and this collective bargaining agreement are:

- 4.1.1 The right to direct the work force;
- 4.1.2 The right to hire, promote, retain, transfer, and assign employees in positions;

- 4.1.3 The right to suspend, discharge, demote, or take other disciplinary action against employees;
- 4.1.4 The right to release employees from duties because of lack of work or for other legitimate reasons;
- 4.1.5 The right to maintain efficiency of the City operations by determining the methods, the means, and the personnel by which such operation is conducted;
- 4.1.6 To take whatever actions are necessary in emergencies in order to assure the proper operation of the City; and
- 4.1.7 To control the City budget.

ARTICLE 5 – RECOGNITION

5.1 The City is engaged in public service requiring continuous operating and it is agreed that recognition of such obligation of continuous service during the term of this Agreement is imposed upon both the City and its employees, members of said Local #280, and the Union itself.

5.2 The Union agrees that its members, who are employees of the City, shall individually and collectively perform efficient work and service; that they shall avoid and discourage waste of materials, time, and manpower; that they shall use their influence and best efforts to protect the City and its interest and to prevent loss of tools and materials; and that they shall cooperate with the City in promoting and advancing the welfare of the City and the service at all times.

5.3 The City retains the right to exercise discipline in the interest of good service and the proper conduct of its business, provided that any regular employee (or his/her representative) who has been laid off, disciplined, or discharged shall be advised of the reason or reasons for such action.

5.4 Disciplinary materials at the level of a written reprimand or higher shall be maintained in the official personnel file of the employee. Access to personnel files shall be limited to the employee, the employee's authorized representative, officials of the City who have a business need for the access, or as required by public records and freedom of information laws at the federal or state level. Employees shall have the right to review their files after providing reasonable advance notice, and shall have the right to attach reasonable materials in explanation or rebuttal to adverse materials. Adverse materials shall not be placed in the personnel file without the knowledge of the employee.

Consideration will be given for removal of disciplinary material from employees' active personnel files upon written request by the employee to the Human Resources Director. A request may not be made until eighteen (18) months have passed since the date of the issue of the discipline unless otherwise agreed. The Human Resources Director will review the matter with the Department Director and provide the employee with a written response within ten (10) days of receipt of the request for removal.

All "last chance agreements" will be removed from employees' active personnel files and placed in confidential administrative files after thirty-six (36) months, provided there are no further issues during that time frame. This language will apply to existing last chance agreements currently on file. It will be the responsibility of the affected employee to notify the Human Resources Director once thirty-six (36) months have passed.

ARTICLE 6 – COMPLAINT, GRIEVANCE, AND ARBITRATION

6.1 Complaint Procedure.

One of the purposes of this Agreement is to provide for the resolution of any employee's complaint properly and equitably. Initiation of a complaint may result from one or more of the following reasons:

- A. If the employee believes he/she has been unfairly treated;
- B. If the employee disagrees with his/her supervisor as to the application of a policy to him/her. Initiation of said complaint shall not subject the employee to discrimination, coercion, restraint, or reprisal as a result of initiating such action. In resolving complaints, the procedure shall be as follows:

Step 1. The employee, together with the Steward if desired by the employee, shall discuss the complaint with his/her supervisor within two (2) working days subsequent to the date of occurrence inasmuch as most problems can be resolved promptly by informal discussion. The supervisor shall verbally rule on the complaint within two (2) working days thereafter. However, in the event the employee is not satisfied with the decision of the supervisor, he/she may initiate Steps 2 and 3 below. Such procedure shall commence within six (6) working days subsequent to the date of occurrence.

Step 2. The employee, together with the Steward and the supervisor, shall orally or in writing submit to the Department Director the facts upon which the complaint is based. The Department Director shall then review the facts. The Department Director shall then notify the employee and the supervisor of his/her decision in writing within five (5) days of the date of receipt of the facts.

Step 3. If the employee is not satisfied with the decision resulting from Step 2, the employee may submit his/her further appeal in writing to the City Manager within two (2) working days from the date of the Department Director's decision. The City Manager, upon receipt of such appeal, shall call a hearing on the issue within ten (10) calendar days of receipt of the written appeal. At such hearing, the employee and his/her representative, the Department Director and his/her representative, if desired, together with the witnesses, if any, shall present the facts of the case to the City Manager or his/her representative. The City Manager shall present his/her decision on the issue in writing to the employee and Department Director within ten (10) calendar days of the date of the hearing. The City Manager's decision shall be final.

6.2 Grievance Procedure.

A grievance is defined as: a) A dispute as to the application or interpretation of this Agreement; or b) If the employee believes he/she has been unfairly disciplined, demoted, suspended or terminated. It is the desire of the parties of this contract to adjudicate grievances as quickly and efficiently as possible. To this end, the following procedure shall apply:

Step 1. The employee who has a grievance shall submit it to his/her supervisor within five (5) working days of the event giving rise to the grievance. A working day shall be defined as any day City Hall is open to the public. Failure to do so will constitute a waiver of the grievance. The supervisor shall give his/her oral answer within five (5) working days after such presentation.

Step 2. If a grievance is not settled in Step 1, and the employee wishes to appeal the grievance to Step 2 of the Grievance Procedure, the employee shall submit the written grievance to the Department Director, the Director of Human Resources, ~~Executive Director of Employee and Community Relations~~, and the Union Business Representative within five (5) working days after the designated supervisor's answer in Step 1. The written grievance shall be signed by both the employee(s) and the supervisor. The written grievance shall set forth the nature of the grievance, the facts on which it is based, the provision or provisions of this Agreement allegedly violated, and the relief requested. Within five (5) working days, the Department Director or his/her representative shall discuss the grievance with the Union Steward and the employee at a time mutually agreed to by the parties. If the grievance is settled as a result of such meeting, the settlement shall be reduced to writing and signed by the City Manager and the Union. If no settlement is reached, the Department Director or his/her representative shall give the Department's written answer to the Union within five (5) working days following their meeting.

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Step 3. If the grievance is not settled in Step 2, and the employee desires to appeal, the matter shall be referred by the employee in writing to the City Manager within five (5) working days after the designated Department Director's answer in Step 2. A meeting between the City Manager or his/her representative and the employee and his/her representative shall be held at a time mutually agreeable to the parties. If the grievance is settled as a result of such meeting, the settlement shall be reduced to writing and signed by the City Manager or his/her representative, and the Union. If no settlement is reached, the City Manager or his/her representative shall give the City's written answer to the Union within ten (10) working days following their meeting.

Step 4. A Steward, upon request of the employee, shall be present in cases of disciplinary action except where management may determine a delicate case may exist such as involving a police matter in which an employee may be confronted and suffer unnecessary and personal embarrassment, or in special situations where it is necessary to take immediate disciplinary action and a Steward is not on duty and available. An employee may not be disciplined by a supervisor or manager of another division unless the employee is assigned to, or is temporarily working in, that division.

6.3 Arbitration.

6.3.1 All disputes raised by the employee against the City involving the application of the specific provisions of the Agreement and not settled by means of the grievance procedure may be disposed of by arbitration in a manner and form hereafter provided. If not settled, the grievance may be referred to arbitration within seven (7) working days after the receipt of the City Manager's answer in Step 3 of the grievance procedure.

The parties shall attempt to agree upon an arbitrator within five (5) calendar days after receipt of notice of referral. In the event the parties are unable to agree upon an arbitrator within said five (5) day period, the parties shall immediately jointly request the Public Employment Relations Commission to submit a panel of at least five (5) arbitrators. Either party may reject one (1) entire panel at any time during the selection process. Both the City and the Union shall have the right to strike two (2) names from the panel. The party requesting arbitration shall make the first strike from the list of arbitrators. The second party shall then strike a second name, the first party a third name, the second party a fourth name, and the remaining person shall be the arbitrator. The arbitrator shall be notified of his/her selection by a joint letter from the City and the Union requesting that he/she set a time and place for an arbitration hearing, subject to the availability of the City and the Union representatives. All arbitration hearings shall be held in Kennewick, Washington (unless the parties mutually agree otherwise).

6.3.2 The arbitrator shall render his/her decision based on the interpretation and application of the provisions of this Agreement. The arbitrator shall have no power or authority to add to, subtract from, or modify any of the terms or provisions of this Agreement.

The arbitrator shall only consider and make a decision with respect to the specific issue submitted to him/her. The arbitrator shall have no authority to make a decision on any other issue not submitted.

In the event the arbitrator finds that he/she has no authority or power to rule in the case, the matter shall be referred back to the parties without decision or recommendation on the merits of the case. In any grievance in which there is a dispute as to whether the matter may be arbitrated or not, the arbitrator shall first rule on this issue. The arbitrator shall have no authority to make or impose a decision which is inconsistent with state or federal law. The arbitrator shall have no power or authority to award punitive damages. No decision of the arbitrator in one case shall create a basis for retroactive adjustment in another case where the facts and circumstances are different. The arbitrator shall have the power and authority to hear only grievances that are timely-filed in accordance with time limits specified by this Article or mutually extended by the parties. The arbitrator may not entertain arguments of continuous grievance as justification for not filing a timely grievance. The arbitrator shall submit his/her decision in writing within thirty (30) calendar days following the close of the hearing or the submission of briefs by the parties, whichever is later, unless the parties agree to a written extension thereof. The decision shall be final and binding upon the parties to the grievance, provided the decision does not involve action by the arbitrator which is beyond his/her jurisdiction.

6.3.3 The fees and expenses of the arbitrator shall be borne equally by the Union and the City. Each party will be responsible for compensating its own representatives and witnesses, and purchasing its own copy of the written transcript. Time involved with preparing and presenting the case shall not be considered as hours worked and will not be reimbursed by the employer.

6.4 If a complaint or grievance is not presented within the time limits set forth above, it shall be considered waived. If there is no appeal to the next step within the specified time limit, or any agreed extension thereof, the matter shall be considered settled on the basis of the City's last answer. If the City does not answer a grievance or an appeal thereof within the specified time limits, the Union may elect to treat the grievance as denied at that step and immediately appeal the grievance to the next step. The time limit in each step may be extended by mutual agreement of the City and the Union or the employee involved in each step. A working day shall be defined as any day City Hall is open to the public.

6.5 Management Grievance/Arbitration. In recognition of the mutual obligation of the parties to this Agreement to abide by its terms and conditions, the City may file a grievance for violation or improper application of this Agreement by any employee or the Union. Such grievance may be appealed to arbitration at the option of the City.

6.6 The Union may file a grievance for violation of or improper application of this Agreement by the City.

ARTICLE 7 – HOURS OF WORK

Section 7.1 applies to employees hired before August 21, 2012; Section 7.2 applies to employees hired August 21, 2012 or later; all other Section in this Article apply to all employees regardless of position or date of hire.

7.1 Hours of Work for employees hired before August 21, 2012:

- A. The work week for full-time employees shall be four (4) consecutive ten (10) hour shifts or five (5) consecutive eight (8) hour shifts. Forty (40) hours shall constitute the standard work week. The scheduled work shift shall be not less than eight (8) and not more than ten (10) consecutive hours, excluding a thirty (30) minute unpaid meal period. For employees required to remain in a duty status during lunch, a twenty (20) minute paid meal shall be provided. A work day means a twenty-four (24) hour period commencing with the employee's scheduled work shift. The Department Director, subject to the approval of the City Manager, shall establish appropriate work shifts specifying starting and ending times, lunch period and scheduled days of rest. Each employee shall be allowed a ten (10) minute cleanup time at the end of his/her shift, and not more than a ten (10) minute break, both prior to and after the normal meal period, to be scheduled by the supervisor. As far as it is practicable, the work day shall conform with established hours of other divisions. This conformity shall not interfere with the special time schedules governing divisions operating more than eight (8) hours in each calendar day.

The normal hours of work shall be established as those eight (8) hour shifts falling between 7:00 a.m. and 4:30 p.m. whenever practicable, with the City reserving the right to change hours in accordance with Section 7.2 of this Article to meet its service delivery needs, which then shall be the normal work day. The normal work week shall be Monday through Friday inclusive.

- B. The City may make adjustments to each division's shift starting time when excessive heat affects productivity, efficiency, and/or safety of a work crew. Employees of the department requesting relief of heat stress may petition their respective supervisor for consideration during the month(s) of June, July, and August. Consideration of such requests shall not be unreasonably denied.
- C. The City will provide a twenty-four (24) hour notice for a change of shift. A shift change is defined as modifying an employee's scheduled work day for one or more consecutive days.
- D. The City shall pay a differential of one dollar (\$1.00) per hour for all hours worked between 6:00 p.m. and 6:00 a.m., Monday through Friday, and for all hours worked on Saturday and Sunday. Employees required to work outside their scheduled shift on a temporary scheduled shift due to emergency weather conditions shall receive a shift differential of \$1.00 per hour for all hours worked between 6:00 p.m. and 6:00 a.m., and for all hours worked on a Saturday and Sunday. When employees work in a temporary scheduled shift, their starting and ending times will be changed to coincide with that shift. Shift differential shall not be paid for overtime or premium rate hours as detailed in Article 8.

7.2 Hours of Work for employees hired after August 21, 2012. For purposes of this section, the following definitions shall apply:

- A. Work Week: The normal work week commences at 12:01 a.m. Sunday and ends at 12:00 midnight the following Saturday, except where an 8-9s schedule is utilized. The work week for full-time employees shall consist of either four (4) ten (10) hour shifts, five (5) eight (8) hours shifts, or eight (8) nine (9) hour shifts with one eight (8) hour shift every other week. An additional alternative compressed work schedule may include four (4) nine (9) hour shifts and one (1) four (4) hour shift during the work week. Forty (40) hours shall constitute the standard number of hours worked in each work week. For full-time employees working a shift other than 5-8s, 4-10s, or 8-9s, the work week will be set so that employees are scheduled to work no more than 40 hours in a work week. Days of rest in an employee's work schedule shall be consecutive. In the event an 8-9s schedule is utilized, the work week shall commence at 11:01 a.m. on the employee's eight-hour work day and end seven days later at 11:00 a.m.
- B. Work Shift: The hours worked each day by the employee, usually in blocks of 8 or 10 hours, excluding the lunch period. The work shift includes starting and ending times and scheduled periods of rest. The scheduled work shift shall be not less than eight (8) and not more than ten (10) hours, excluding a 30-minute unpaid meal period. For employees required to remain in a duty status during lunch, a twenty (20) minute paid meal shall be provided.
- C. Work Day: A work day means a twenty-four (24) hour period commencing with the employee's scheduled work shift.
- D. Shift Change: Modifying an employee's work starting time and ending time on one or more days or modifying the days on which an employee is required to report to work. The City will provide twenty-four (24) hours advanced notice of a change of shift.

- E. Existing Employees: Employees hired before August 21, 2012 may request a compressed work schedule as provided under subsection A above. The division manager or designee is vested with the exclusive authority to authorize a compressed work schedule, and the decision to authorize a compressed work schedule shall be based on the business needs of the City. In the event a compressed work schedule becomes unsuitable to the business needs of the City, the City may revert back to the normal shift schedule upon giving 30 (thirty) days notice to the affected employee(s).
- F. Compressed Schedule – Holiday Pay/Leave/Overtime: For employees on a compressed work schedule of either 4-10s or 8-9s, the following shall apply:
1. Holidays – Holiday weeks may be scheduled in one of two ways, at the discretion of the division manager or designee:
 - a. Revert to 8-hour work days where holiday pay will be made in accordance with the collective bargaining agreement; or
 - b. Maintain the alternative compressed work schedule. When a holiday occurs on one of the employee's regularly scheduled work days, the employee will be credited with eight (8) hours of holiday pay. Hours in excess of eight (8) during the holiday shall be charged to PTO or compensation time if available. Water plant operators working ten (10) hour shifts will be compensated at 10 hours for holiday pay if they are required by the City to work that schedule. Additional hours of work may be scheduled during the period, unless annual leave is requested and approved. When an employee's regularly scheduled day off is a Monday and a holiday falls on that day, the employee will be permitted to take off the following day. When an employee's regularly scheduled day off is a Friday and the holiday falls on that day, the employee will be permitted to take the preceding day off.
 2. Leave Time – Time off during an employee's compressed alternative work schedule is charged to the appropriate leave category. Leave will be recognized in accordance with scheduled work hours (e.g., 9 hour work day = 9 hours of leave).
 3. Overtime – Overtime may be ordered and approved subject to the overtime conditions found in this Agreement. Overtime for compressed work schedules is defined as that work or duty time in excess of nine (9) hours in a 9-hour day and eight (8) hours in an 8-hour day for those employees on an 8-9s schedule, or work or duty time in excess of 10 hours in a 10-hour day for those employees on a 4-10s schedule. An employee may request compensatory time off in lieu of overtime pay as provided under this Agreement.
 4. Mandatory Schedule Changes – When an employee on a compressed work schedule is required to travel, participate in a training course, or serve at a location where the hours of work are different than the employee's schedule, the division manager or designee will make individual adjustments in the work hours on a case-by-case basis to ensure that the appropriate number of hours are included in the employee's work

schedule period (40 hours in one week for employees on 4-10s, 80 hours in two weeks for employees on 8-9s). Where necessary, the supervisor may change an employee's schedule to standard 8-hour days or a 40-hour week during critical work assignments requiring this adjustment to correct work problems resulting from the compressed work schedule. Except in the event of an emergency or unforeseen circumstance, employees will be notified one week in advance when a change to the work schedule is required to satisfy operational priorities.

7.3 The City and Union will continue to work together regarding use of the Benton County Department of Corrections work crew(s). The intent is to use work crews for low-skilled labor only. Work crews are allowed to use hand tools, weed-wackers, blowers, and push mowers at the discretion and direction of the City's crewleader. City staff will maintain areas such as Columbia Center Boulevard and 10th Avenue, while work crews maintain areas such as the Tri-City Coliseum, fire stations, plants, and other small areas. The City may add work crews for low-skilled labor only so long as it does not result in the displacement of current employees. The Toyota Center may contract out mowing at its discretion if it does not want to utilize the work crew for such work.

7.4 Employees shall travel from job site to job site on City time and shall report at shop headquarters at which they are regularly employed, although they may be assigned to work within any division covered by this Agreement. Employees shall have a meal period at the nearest location where sanitary facilities are available. During the inclement weather, as determined by the supervisor, such breaks may be permitted at the shop.

7.5 Alternate Work Schedule.

- A. Employees in the Water division (including Water Treatment Plant operators and Water Distribution crews) and Wastewater division (including Wastewater Treatment Plant operators and Wastewater Collection crews) of the Public Works department, irrespective of their dates of hire, will work year-round alternate work schedules.
- B. Employees in the Streets & Storm Water divisions of the Public Works department, irrespective of their dates of hire, will work alternate work schedules between March 1 and October 31 each year. Employees in these divisions will revert to standard work schedules between November 1 and February 28 (or 29) each year. The standard work schedule means Monday through Friday from 7:00 a.m. to 3:30 p.m.
- C. Employees in identified divisions will work the "nine-eighty" alternate schedule identified in Section 2-24-080(2)(b)(ii) of the Kennewick Administrative Code. Specifically, they will work 80 hours in any two-week period over the course of nine working days. In one work week, employees will work four nine-hour days (from 6:30 a.m. to 4:00 p.m.) and one eight-hour day (from 6:30 a.m. to 3:00 p.m.). In the subsequent work week, employees will work four nine-hour days (from 6:30 a.m. to 4:00 p.m.) and have one weekday off work. Employees will split their weekdays off between Mondays and Fridays off in order to minimize the number of employees off on any given day while still providing a three-day weekend every other week.

- D. For the purpose of defining the work week under the Fair Labor and Standards Act (FLSA), employees working alternate schedules will have their work week will begin at the mid-point of their eight-hour shift/weekday off and will end at the same time seven days later. For example, an employee working 6:30 a.m. to 4:00 p.m. with Friday as his or her flex day will have his or her work week start each Friday at 11:00 a.m.
- E. The City maintains the right to make individual adjustments in employees' work hours to correct problems resulting from this alternate schedule (for example, during travel/training or critical work assignments) or in the event of an emergency or unforeseen circumstance as described in Article 7.2(F)(4) of the collective bargaining agreement.

7.6 Meal and Break Periods.

- A. Meal Periods. Employees will be fully relieved from duty for thirty (30) minutes approximately halfway through their scheduled workday. If employees do not have access to clean washing facilities and/or appropriate eating areas at their worksite, the time spent driving to and from the nearest approved facility will not reduce employees' meal period. Employees will not unreasonably detour away from their worksites or away from their route between their worksites and an approved facility.
- B. Break Periods. Employees will be permitted to take one ten (10) minute break before their meal period and one ten (10) minute break after their meal period. Employees will not unreasonably detour away from their worksites and all time spent away from work will constitute part of employees' work breaks.
- C. Cleanup Time. Employees will be permitted up to ten (10) minutes of cleanup time prior to the end of their work shifts as necessary. Employees who do not require cleanup time will continue to work until the end of their scheduled work shift.

ARTICLE 8 – OVERTIME AND PREMIUM RATES

8.1 As a general rule, the requirements of frequent and considerable scheduled overtime service in any organization unit shall be considered evidence of under-staffing or improper organization, and shall be subject to investigation by the City Manager. Any related decision of the City Manager shall be final. Overtime work shall include only that work performed by the employees at the direction of a Department Director or his/her authorized representative which exceeds standard work scheduled, and may be compensated as follows:

8.1.1 Overtime is all required and authorized work performed in excess of a full-time employee's forty (40) hour weekly and/or daily scheduled work shift. A minimum of one (1) hour of overtime shall be paid for scheduled overtime, exclusive of holdover. Overtime may be scheduled without 24-hour notice (this is not considered a shift change or call-in). Overtime pay shall be at the rate of one and one-half (1-1/2) times the regular salary for:

1. Hours in excess of the scheduled full time work day;
2. Hours worked on scheduled days of rest; and
3. More than one (1) scheduled overtime assignment for an employee within a twenty-four (24) hour period shall be paid at a minimum of one (1) hour of double time.

8.1.2 Call-in. An employee called back to work when not scheduled shall be paid for the time so worked but shall be guaranteed a minimum of two (2) hours of double time pay. If the call-in time or a shift change with less than twenty-four (24) hour notice precedes and carries into a scheduled shift, the employee shall terminate the work day upon completion of his/her shift or a maximum of twelve (12) hours based on safety concerns unless agreed upon by the crewleader and supervisor. Time worked during the scheduled shift shall be paid at the straight time rate of pay. The double time call-in rate shall be paid for:

1. Call-in; and
2. Less than twenty-four (24) hour notice of a shift change.

8.1.3 For overtime work on a holiday, an employee shall be compensated at the rate of two (2) times the regular rate of pay for all hours actually worked. In addition, the employee shall receive eight (8) hours of holiday pay at the straight time rate as provided in Article 17.

8.2 For the purpose of overtime pay for employees hired prior to August 21, 2012, the work week shall begin Monday at 12:00 a.m. (midnight) and run through the following Sunday at 11:59 p.m.; and the work day for employees shall start at the time he/she reports to work and shall end twenty-four (24) hours later. For employees hired after August 21, 2012, the work week and work day for purposes of overtime shall be as defined in Section 7.2 of this Agreement.

8.2.1 An employee who is required to report to work and does so report, but who is not put to work, shall receive two (2) hours of pay at the straight time rate.

8.3 All employees assigned to work a shift other than their regular work hours will be permitted to work eight (8) straight hours with a twenty (20) minute lunch period, carrying their lunch and eating on the job whenever possible.

8.4 The City agrees to post on the department bulletin board a record of employees' overtime, sick leave, and PTO. Overtime shall be equalized as best as possible on a divisional basis.

8.5 An employee shall be allowed a meal when:

1. He or she has been called out and works a minimum of three (3) hours, or;
2. He or she is called out and the call-out extends into the regularly scheduled shift, or;
3. His or her shift is extended a minimum of two (2) hours

The time allowed for meals shall be non-compensable. The meal period shall be on the City time in all circumstances when the employee is required to remain on duty during the meal period.

Meal allowances will be paid in accordance with the City's travel Policy per diem schedule in effect on the date of the meal. The City's per diem schedule will be updated as the General

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Services Administration (GSA) established new rates.

Employees shall pay directly for their meals eaten and are not required to submit meal receipts.
Employees may choose a meal of greater or lesser value than the established per diem in effect;
however, their meal allowance shall nonetheless equal the per diem meal rate

The following meal period will determine the appropriate meal allowance:

Meal	Meal Period
Breakfast	12:01 am to 8:00 am
Lunch	8:01 am to 4:00 pm
Dinner	4:01 pm to 12:00 am

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The time the employee becomes entitled to a meal determines the per-diem rate to be used.

For example: If an employee is called out at 8:30 pm, and works unit 1:30 am, the
employee is entitled to a meal at 11:30 pm (three (3) hours after the call-out) at the dinner rate.
However, if an employee is called out at 10:00 pm and works until 1:30 am, the employee is
entitled to a meal at 1:00 am at the breakfast rate.

An employee shall be entitled to a second meal in the event he/she works an additional four (4)
hours, without being sent home, on overtime or on his/her normal shift after he/she was entitled
to the first meal.

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~~8.5 The City agrees to reimburse an employee twelve dollars (\$12.00) for dinner actually taken, irrespective of the amount of the receipt, by an employee who works an additional two (2) hours which are an extension of his/her scheduled and worked full time work day. An additional meal will be provided for every four (4) continuous hours worked beyond the initial two (2) hour extension mentioned herein. This provision shall not apply to scheduled overtime or where notice of a shift change is made pursuant to Article 7. The City will pay twelve dollars (\$12.00) for meals actually taken during the extension and for which a dated receipt has been provided to the supervisor in their next scheduled and/or feasible paycheck. In order to be eligible for reimbursement, the meal must be purchased within four (4) hours of the end of the shift.~~

~~The City agrees to reimburse for a meal in the amount of twelve dollars \$12.00 to an employee who is called in and works at least four (4) continuous hours. This section shall not apply where notice of shift change is made pursuant to Article 7 of this Agreement.~~

8.6 In lieu of pay for overtime hours actually worked, as defined in Section 8.1 of this Article, an employee may request compensatory time off ("comp time").

Compensatory time off in lieu of pay for overtime shall be subject to the following conditions:

- A. An employee must declare their option at the completion of the overtime work period whether he/she wants overtime pay or comp time for the hours worked.
- B. Comp time will be provided at the rate earned, as specified in Section 8.1 of this Article. (For example, eight (8) hours worked at time and one-half (1/2) will count as twelve (12) hours of comp time; or two (2) hours worked at double time will count as four (4) hours of comp time.)
- C. An employee may accumulate a maximum of eighty (80) hours of comp time on the books at any one time (all hours in excess will be paid).
- D. Compensatory time off may be taken at a time mutually agreeable between the employee and his/her supervisor.
- E. The City reserves the right to pay off the accumulated compensatory time of any employee, at any time, at the employee's then prevailing rate.
- F. An employee must use all comp time prior to quitting unless terminated for cause by the employer.
- G. An employee may elect to cash out up to forty (40) hours of accrued unused comp time one time per year. Any employee desiring to cash out up to forty (40) hours of accrued unused comp time must notify payroll of his/her intent, in writing, by October 20th each year. The written notification will indicate the number of hours the employee wishes to cash out. The City will cash out up to forty (40) hours of accrued but unused comp time on or before the second payday in November.

8.7 Overtime and Extended Work Shifts. Employees' work shifts will ordinarily be limited to twelve (12) consecutive hours, including overtime, but may be extended to fifteen (15) consecutive hours with approval of both the supervisor and the affected employee. In the event of an emergency, employees' work shifts may be extended beyond 15 consecutive hours with approval of both the Department Director and affected employees. Employees who do not complete their regularly scheduled work shifts based on the limitations described above will have the option to make up for any unworked regular work hours using paid time off. The City will not reduce earned overtime hours to offset any unworked regular work hours.

8.8 On Call Program.

- A. Covered Divisions. This agreement will apply to employees in 1) the Water Treatment Plant, 2) the Water Distribution Division, 3) the Wastewater Treatment Plant, 4) the Wastewater Collection Division and 5) the Streets and Storm Water Divisions.
- B. On-Call Status. One employee in each division will carry a designated on-call cellular telephone at all times when the division is not staffed. Employees may not carry phones for more than one division at a time. On-call assignments will be made in one-week intervals on an equal rotational basis in reverse order of Union seniority. However, employees are free to trade or give/take on-call assignments with other qualified employees provided the affected employees notify management in writing and provided any trades or changes do not result in a lack of coverage or in increased costs to the City.

1. If any conflict arises and an employee is unavailable to work an on-call assignment, the affected employee is expected to work with his or her co-workers to resolve the conflict. If the affected employee cannot voluntarily resolve the conflict, he or she must contact the crewleader who will resolve the conflict. If the crewleader cannot resolve the conflict, he or she must contact the supervisor who will resolve the conflict. ~~If the employee is dissatisfied with the supervisor's decision, he or she may utilize the Complaint procedure identified in Section 6.1. The City Manager's decision is final.~~

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Employees who are not fully trained and/or certified to operate the plants will be ineligible to be placed in on-call status for those divisions. This includes the ACT Specialist, Sr. ACT Specialist, Pre-Treatment Specialist and Infrastructure Specialist positions. New employees will be ineligible to be placed in on-call status for the duration of their probation, but may be eligible to take on-call assignments with supervisor pre-approval once they have demonstrated appropriate qualifications.

On-call hours are considered work hours consistent with the Kennewick Administrative Code concerning Alcoholic Beverages, Drugs and Other Intoxicants (KAC 2-32-110), and the consumption, use, sale, transfer, or being under the influence of alcoholic beverages, illegal drugs or other intoxicants during on-call hours is prohibited. Employees in on-call status are expected to remain available for service at all times.

- C. Responses after an alert is first sent, employees will have a maximum of fifteen (15) minutes to acknowledge the alarm and/or make contact with the affected citizen, if applicable. After an alert is first sent, employees will have a maximum of forty-five (45) minutes to arrive on scene, if necessary. Employees who fail to respond as agreed herein may be subject to progressive discipline, if appropriate.

One City vehicle per division will be made available for on-call employees. Employees are not required to use City vehicles, but the response times will remain the same whether the employee uses a City vehicle or a personal vehicle. Employees who use City vehicles will be subject to the Kennewick Administrative Code governing the use of City vehicles (KAC 2-05-045, KAC 2-05-047 and KAC 2-05-050). Employees who elect to use personal vehicles will not receive mileage or fuel reimbursements.

- D. Compensation. The City will compensate employees at the rate of ~~five three~~ dollars (\$~~53.00~~) per hour for all hours the employee remains in on-call status. Employees will not receive on-call compensation while working scheduled weekend work or scheduled overtime.

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When the on-call employee is called into service, the employee will cease to receive on-call status pay and will instead receive regular overtime pay (one and one half times regular base pay) with a two-hour minimum, regardless of hours actually worked. The employee will resume receiving on-call pay when work ceases. When any employee not in on-call status is called in for additional support, the compensation rates in the collective bargaining agreement will apply (see Section 8.1.2).

1. Double time exceptions:

- When the on-call employee requires the assistance of one or more additional employees who would earn double time consistent with Section 8.1.2, the on-call employee will also begin to earn double time upon the arrival of the additional employee(s) and will continue to earn double time for all hours worked alongside the additional employee(s). The on-call employee will remain entitled to a two-hour minimum at regular overtime pay but will not be entitled to a two-hour minimum at the double time rate.
- When the on-call employee is called into service on an actual holiday as defined in the CBA, the employee will receive overtime pay at the double time rate with a two-hour minimum, regardless of hours actually worked.
- When the on-call employee is called into service for a different division that has not adopted an on-call policy, the employee will receive overtime pay at the double time rate with a two-hour minimum, regardless of hours actually worked.

The parties recognize that some calls may be resolved remotely without the need to respond on site. Time spent performing remote work will be tracked in the aggregate and reported on a monthly basis. When the aggregate monthly time spent is 7 minutes 30 seconds or less, the time will be considered *de minimus* and will not be compensated at the overtime rate. However, when the aggregate monthly time spent is 7 minutes 30 seconds or more, the employee will be compensated for the actual time worked at the receive regular overtime pay (one and one half times regular base pay) for hours actually worked.

ARTICLE 9 – PAYDAY

9.1 The City will pay employees on a bi-monthly basis. If any payday falls on a holiday, the principle that the preceding day becomes a payday shall be followed. Hours worked up to and including the last working day in the month will be paid as early as possible thereafter, but not later than the fifth (5th) day of the month following; and hours worked between the first (1st) and the fifteenth (15th) day of the month will be paid as early as possible thereafter, but no later than the twentieth (20th) day of the month.

9.2 The City may, as determined by the Finance Department, institute a bi-weekly payroll.

9.3 In the event that a weekend and/or a holiday near the end of a pay period cause payroll to have a very short period of time to produce pay checks, the deadline for submitting timesheets may be moved a few days. If the employee works overtime between the time s/he is required to submit a timesheet and the end of the pay period, the overtime will be added to the paycheck for the following pay period.

9.4 Overtime pay will be included in the paycheck for the period in which it is earned, except in circumstances described in Section 9.2 above.

ARTICLE 10 – SAFETY & CLOTHING

10.1 A Field Risk Management Committee, reporting to the City Manager, shall be established, which will have an equal number of bargaining unit employees and employees representing management. The Chairman of this Committee shall be selected from the members of the Committee. The purpose of this Committee shall be to review and make recommendations to update safety policies and procedures, with approval of the employer, regarding all employees covered by this Agreement. The Committee shall meet monthly to review safety problems brought to their attention either by management or the employees which may affect the safe and competent operations within the City. The Committee may make recommendations with regard to improving safety conditions and eliminating safety problems and hazards.

10.2 The City agrees to train certain personnel in the methods of industrial first aid as required by the General Safety and Health Standards (WAC 296.24.060) of the State of Washington. Employees required to attend industrial first aid training courses, on their own time, will be compensated for actual training time at one and one-half (1-1/2) times their regular hourly rate of pay.

10.3 The City agrees to allow employees involved in the handling of oil and other foreign substances the use of any available coveralls for such work.

10.4 The City agrees to provide all Operating Engineers with a uniform allowance in an amount not to exceed ~~four hundred (\$400.00)~~ **five hundred (\$500)** for the purpose of purchasing City-approved uniforms, which may be used toward the purchase of an optional safety coat in lieu of the normal coat, and may use it to be reimbursed for the purchase of required safety footwear **and prescription safety glasses**. Receipts may be turned in for reimbursement in February and September consistent with the existing practice for jeans reimbursement unless directed as part of City-authorized work, uniforms shall not be worn in any environment from which minors under the age of 21 are prohibited, regardless of whether the City or the employee purchased the uniform. Alcohol shall not be consumed while wearing a City uniform. All employees are expected and required to report to work on a daily basis wearing the uniform provided by the City of Kennewick. Uniforms should be clean and neat in appearance, and ~~may shall~~ bear the City logo and, ~~or~~ the name of the employee on the front. No outerwear shall be allowed except approved safety clothing ~~or outerwear~~ provided by the clothing allowance. ~~The City has the sole discretion to require it~~ The logo and, ~~or~~ name of the employee ~~shall to~~ be visible to the general public, ~~unless the employee is in an~~

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~~approved uniform garment that cannot be imprinted with the name and/or logo.~~

Clothing will be replaced annually on a fair wear-and-tear basis as determined by the City. Employees are responsible for knowing and understanding the terms of the clothing provisions of this Agreement, and must abide by them as a condition of employment. Any employee who is out of compliance with the clothing provisions of this Agreement, other than through a City-requested emergency response, shall be sent home without pay to make the appropriate changes to the uniform.

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10.410.5 Uniform Standards:

A. Standard Clothing List:

- Uniform pants – dark blue
- Blue jeans
- Blue work shirts with City logo and employee's first or last name
- Uniform shorts – dark blue in non-safety sensitive areas as approved by supervisor
- Dark blue T-shirts with City logo and employee name
- Grey (flecked) T-shirts with City logo and employee name
- Safety orange T-shirts with City logo and employee name
- Employees may purchase at their own expense dark blue sweatshirts with City logo and employee name (logo and name must be put on by City-designated screen printer to ensure consistency)
- Parka with City logo and employee name – dark blue and/or class III safety
- Hooded dark blue sweatshirts with City logo and employee name
- Raingear – yellow
- Insulated jacket in dark blue and/or class III flight jacket with City logo and employee
- Insulated bib overalls in dark blue cover
- Insulated vests in navy dark blue color with City logo and employee name
- Required safety footwear as identified in the Kennewick Administrative Code.

B. An employee listing shall be made available for tracking dollar amount spent/available.

C. Divisional or departmental logos are not appropriate. Clothing must have the City of Kennewick logo.

D. Jeans will be purchased by the employees who wish to wear them, and receipts shall be turned in to the employee's supervisor for reimbursement. A maximum of six (6) pairs of jeans can be ordered annually. Jean receipts may be turned in for reimbursement two (2) times annually: February and September. An invoice shall be entered for all reimbursements; the original receipt shall be sent to Accounts Payable and shall include the following: employee name, quantity, item purchased, total amount.

E. A clothing price list shall be maintained by Purchasing which will include current pricing and vendor(s) for the standard clothing items. Orders for clothing may be submitted to Purchasing two (2) times annually: February and September. Reimbursement shall occur within 30 days. Exceptions include new hires and replacements for damaged and/or contaminated clothing. Orders shall be placed using a requisition and shall include the following information: employee name, quantity, style/catalog number, sizing, and current price.

- F. Manufacturing error returns shall be made within five (5) working days of receipt of the clothing by the employee.
- G. Hats: Employees wishing to wear hats shall wear only City-issued hats. These hats shall be stocked in the central warehouse and bear the City logo. Hats shall be available to employees at no cost. An initial complement of not more than four (4) hats will be issued to all employees who wear hats, and worn hats will be replaced on an as-needed basis. Employees will be allowed to display a pin of the American Flag on the hat.

10-510.6 Clothing for New Hires: New employees will receive the first half of their initial uniform allotment upon hire, and will receive the second half of their initial uniform allotment after six months provided they receive a satisfactory six-month performance evaluation. New employees who do not receive a satisfactory six-month performance evaluation will receive the second half of their uniform allotment upon successful completion of their probationary period.

Safety clothing and T-shirts are in addition to the uniform complement of clothing and may be substituted for like items, but not in addition to the initial one-half and full complements.

- A. The first half of the new hire uniform complement shall consist of 3 work shirts, 3 pairs of pants, 1 insulated bib overalls, 1 detachable hood, 1 lightweight jacket, 1 jacket liner, 1 polar coat, and 1 hooded sweatshirt.
- B. A full new hire uniform complement shall consist of 6 work shirts, 6 pairs of pants, 2 insulated bib coveralls, 2 lightweight jackets with liner, 1 set of raingear, 1 insulated vest, 1 polar coat, and 1 hooded sweatshirt.

10-610.7 The City will provide employees with one safety vest and one pair of safety coveralls for night and/or right-of-way work on an as-needed basis at the supervisor's discretion. The City will exchange worn-out safety vests and safety coveralls on an as-needed basis.

ARTICLE 11 – RELIEF FROM DUTY

11.1 Employees relieved from duty because of lack of work or other related reasons, as determined by the City, during the first half of a standard shift shall receive not less than one-half (1/2) day's pay. If relieved after having been on duty more than one-half (1/2) day, the employee shall then receive a full day's pay. This clause will not apply to employees relieved from duty due to disciplinary action.

11.2 Article 11 shall not apply where Article 8 of this Agreement is involved, or in the case of a bona fide emergency.

ARTICLE 12 – TEMPORARY UPGRADE: TEMPORARY ASSIGNMENT

12.1 For purposes of this Agreement, a temporary upgrade is defined as an appointment to an upgraded position lasting five (5) days, or forty (40) hours, or less. There is no expectation that the same employee will remain in upgrade status for the duration of a temporary upgrade. A

temporary assignment is distinguished from a temporary upgrade in that its duration is more than 5 days or 40 hours. The same employee will remain in upgrade status for the duration of the appointment when appointed to a temporary assignment.

12.2 An employee covered by this Agreement becomes eligible for upgrade opportunities after he/she has time-in-grade (completed probationary period). Upon the initial upgrade to a higher classification covered by this Agreement, ~~the employee shall receive at least the prevailing starting rate of pay for the higher classification for the duration of the upgrade, the employee will receive a five (5) percent specialty pay above their base hourly wage rate, but not less than his/her current rate of pay. After twelve (12) months from the date of the initial upgrade, and every subsequent twelve (12) month period thereafter, the employee appointed to a temporary upgrade or temporary assignment shall be compensated at the next step in the upgraded band. A separate 12 month timeframe shall apply for each separate upgrade position. Nothing in this section shall be construed as denying the City the right to advance employees to the job rate before employees have completed a full 12 month period receiving upgrades in the higher classification.~~ It is understood that employees covered by this collective bargaining agreement temporarily acting in a non-bargaining unit capacity are covered by the terms of this entire Agreement.

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12.3 Crewleader Upgrade. Qualified employees of the bargaining unit will be upgraded to the highest crewleader positions when:

- A. The regular lead is absent from work or duty two (2) or more consecutive hours during the regular work hours and days, and the absence meets the qualification for upgrade as described in paragraph B below. During such periods of upgrade, the employee may be called upon to make upper level decisions associated with his/her division. In the event that an employee is upgraded after the two-hour window, pay for purposes of upgrade will include the first two hours the regular crewleader was absent from duty. The upgrade will continue until the regular crewleader returns to his/her regular crewleader duties.
- B. Crewleaders attending mandatory safety or other related mandatory training will not be interrupted during periods of such training. Training that is not of a safety sensitive nature, including regular safety meetings, will not necessarily cause upgrades of other bargaining unit personnel unless authorized by management.
- C. Only qualified employees having five (5) or more years of seniority with the City will be considered for upgrades to crewleader, although the City reserves the right to use less senior employees when there is no qualified individual with such seniority available.
- D. Upgrade pay for employees upgraded to crewleader, or lead plant operator will be ten percent (10%) above their base hourly wage rate, determined according to Section 12.2 above.

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ARTICLE 13 – MEDICAL LEAVE

13.1 Upon application of a probationary or regular employee, a medical leave of absence without pay may be granted by the appointing authority for the entire period of disability because of sickness or injury for a maximum of one year. In order to qualify for medical leave without pay, an employee must first use all of his/her accrued PTO. Such leave need not be limited to one (1) year, but the appointing authority from time to time may require that the employee submit a certificate from the attending physician or a designated physician. For a new hire probationary employee, such time granted will be added to the probationary period. (For special probationary employees, see Article 23.)

ARTICLE 14 – SICK LEAVE

14.1 Grandfathered Sick Leave. Effective January 1, 2017, each employee will have his or her accumulated and unused sick leave (up to 1,152 hours) placed in an inactive sick leave bank. Employees may use their sick leave bank for scheduled preventative health and dental appointments and for eligible unscheduled absences due to illness or injury instead of PTO until the inactive sick leave bank is depleted. The sick leave bank shall not accumulate any additional hours of sick leave.

14.2 Grandfathered Sick Leave Cash Out.

A. ~~Employees hired prior to March 17, 1987: Upon separation from employment, except for just cause or resignation in lieu of termination, each employee will receive twenty five percent (25%) of his/her accumulated and unused sick leave converted to and added to any other accrued leave; however, if an employee retires in good standing, is laid off for lack of work or budget considerations or is deceased, the employee will receive fifty percent (50%) of his/her accumulated and unused sick leave converted to and added to any other accrued leave. The provisions of this Article shall be limited to payout on a maximum accrual of eight hundred thirty-two (832) hours of sick leave for each employee.~~

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B. Employees hired between March 18, 1987 and March 2, 1999: Upon separation from employment, except for just cause or resignation in lieu of termination, each employee will receive twenty-five percent (25%) of his/her accumulated and unused sick leave converted to and added to any other accrued leave subject to the following conditions:

- The employee must have been a full-time employee of the City for at least five (5) years to receive any cash-out;
- The payout shall be based on a maximum accrual of eight hundred thirty-two (832) hours; and
- The maximum value of such conversion shall not exceed \$3,000.00.

C. Employees hired after March 2, 1999 shall not be eligible for sick leave cash-out at termination.

ARTICLE 15 – MEDICAL, LIFE & DENTAL INSURANCE

15.1 Employees will have an option to choose between the Asuris HealthFirst \$250 deductible plan or the Kaiser HMO plan for health insurance coverage. Employees will contribute an amount equal to 10% of the cost of their selected plans (single, married or married with dependents) toward their health insurance premiums. Employee contributions toward their health insurance premiums will be deducted from employee paychecks each pay period on a pre-tax basis (both FICA and FIT) unless an employee specifically opts to have them made on a post-tax basis. Employees who decline health insurance benefits for themselves or their families because they have alternate insurance coverage will be eligible for a financial incentive under the same terms and conditions as non-contract employees.

15.2 The City shall provide life insurance for employees and dependents and shall pay the entire premium for this coverage.

15.3 The City shall provide dental insurance through the carrier of its choice for the duration of this Agreement.

15.4 The parties agree that the Association of Washington Cities Trust controls the plan design. The parties agree that changes to the plan may occur occasionally.

15.5 The City will provide an employee assistance plan (EAP) which the City can unilaterally modify, discontinue, or change providers at any time.

15.6 The City shall pay the full premium of a long-term disability (LTD) insurance program.

15.7 Union members agree to actively participate in the City's Wellness Program.

ARTICLE 16 – ACCIDENT LEAVE

16.1 In the case of a disability which is covered by State Industrial Insurance or Workman's Compensation for the City of Kennewick, the City will pay to such disabled employee an occupational disability allowance equal to his/her regular straight time wages for the period of time in which the employee has sick leave benefits, or in lieu of sick leave the employee may elect to receive State Workman's Compensation at the time he/she has exhausted his/her sick leave benefits.

ARTICLE 17 – HOLIDAYS

17.1 The following, and such other days as the City Council by ordinance may fix, are official paid holidays for all regular employees of the City who are covered by this Agreement:

1. New Year's Day – January 1
2. Martin Luther King's Birthday – Third Monday in January
3. Washington's Birthday – Third Monday in February
4. Memorial Day – Last Monday of May

5. Independence Day – July 4
6. Labor Day – First Monday in September
7. Veteran's Day – November 11
8. Thanksgiving Day – Fourth Thursday in November
9. The day after Thanksgiving Day
10. Christmas Day – December 25
11. One floating holiday in lieu of Lincoln's birthday accrued on February 12. Employees must be in a paid status on February 12 in order to accrue this floating holiday.
12. One floating holiday to be selected by the employee in cooperation with the employer.

When any of these holidays fall on a Saturday, the Friday immediately preceding such holiday shall be observed as a holiday. When any of these holidays fall on a Sunday, the Monday immediately following shall be observed as a holiday.

17.2 Holidays observed during an employee's PTO shall not be counted as PTO taken.

17.3 The floating holiday identified as number 12 in Section 17.1 shall accrue on February 1. Employees in a paid status between January 1 and June 30 shall receive 8 hours of floating holiday. Employees hired after June 30 shall not receive the floating holiday in that year. However, such employees shall be entitled to a floating holiday as mandated by state law, in successive years, provided service is not broken.

Employees have the option to utilize earned floating holiday(s) to care for themselves, child(ren), or a seriously ill family member, including spouse, parents, parents-in-law, grandparents, and adult child(ren) with disabilities, as provided in RCW 49.12.265, RCW 49.12.295.

17.4 When the City mandates a 10-hour shift, then during the week the mandated ten-hour shift is in effect in which there is also a scheduled holiday (exclusive of floating holidays), the employee shall receive ten (10) hours for each said holiday that may fall within that week. The City may reschedule the shift during the week of the holiday(s) to a standard eight (8) hour per day shift, in which case the employee shall only be entitled to eight (8) hours of holiday pay for each scheduled holiday during that week. Should the City elect to shift to an eight (8)-hour daily shift during the holiday week, the employee(s) may request to remain on the 10-hour shift during that week. If approved by the City, the employee(s) shall then be paid 8 hours holiday pay for each holiday in the week, and will also be required to claim two (2) hours of either accrued PTO, compensatory time, or unpaid leave on each holiday to make up the total 10 hours off for each holiday. Where the employees voluntarily accept ten (10) hour work days (including other alternative shifts such as 8-9s), and when approved by the City, the employees shall be paid eight (8) hours of holiday pay for each holiday, and will also be required to use two (2) hours of accrued PTO or compensatory time to make up the difference. The City may elect to shift back to an eight (8)-hour work day during the holiday week if it determines doing so is in the best interest of the City.

ARTICLE 18 – PAID TIME OFF

*The City, will provide a one-time deposit 16 hours of PTO to each employees that are current at the time of ratification. (This language will not be in the contract)

18.1 PTO Accrual Rate. Full-time employees will accrue PTO hours as follows:

<u>Years of Service</u>	<u>Accrual Rate (per month)</u>
Start of year 1 through 5 years	12 hours
Start of year 6 through 9 years	15 hours
Start of year 10 through 14 years	17 hours
Start of year 15 through 19 years	19 hours
Start of year 20 through 24 years	21 hours
Start of year 25 through 29 years	23 hours
More than 30 years of service	25 hours

Employees will not accrue any PTO hours during periods of leave without pay.

18.2 Annual PTO Carryover and Cashout Limit. Employees have an annual PTO carryover limit of six hundred and forty (640) hours. For the purpose of this annual carryover, the City defines the year as April 1 through March 31. Employees will lose any PTO hours in excess of six hundred and forty (640) hours at the end of the March 31 pay period every year.

Upon separation from employment, employees will be compensated for accumulated and unused PTO hours as follows:

0 through 9 years	300 hours
10 through 19 years	400 hours
20 through 29 years	500 hours
30+ years of service	600 hours

Accumulated and unused PTO hours will be compensated at the employee’s straight time base rate of pay.

18.3 Authorized Uses. PTO hours are either Scheduled or Unscheduled.

- A. Scheduled. Scheduled use occurs when an employee requests and obtains crewleader or supervisor approval to use PTO hours. Requests for scheduled PTO must be submitted at least two (2) weeks in advance. However, depending on the workload of the unit, the crewleader or supervisor may waive all or part of the two (2) week advance notice requirement. Once scheduled PTO has been approved, it may not be changed except for reasons authorized by the Department Director or Manager.
- Procedure. PTO will be scheduled by the Department Director at times when they will constitute minimum conflicts with work schedules. PTO will be scheduled by seniority and classification through March 31 of each calendar year. Any request for PTO after March 31 will be on a first-come, first-served basis. Reasonable consideration will be given to allowing full-time employees summer vacations.

B. **Unscheduled.** Unscheduled use occurs when an employee is unable to request and obtain crewleader or supervisor approval to use PTO hours. Unscheduled uses of PTO must be compelling and of an emergency and/or urgent nature. Preventative health and dental appointments are not considered acceptable unscheduled uses and time off must be requested and approved in advance in accordance with the provisions for scheduled uses above. An employee who is unable to report to work due to an unscheduled absence must contact their crewleader or supervisor in accordance with department/division policy, or absent such a policy, within 30 minutes of the beginning of their scheduled work shift.

1. Examples of unscheduled uses of PTO:

- i. **Personal Sick.** Unscheduled PTO is available for employees who need to take leave for non-work related personal illness or injury.
 - ii. **Work Related Illness or Injury.** While not intended for work-related injuries, employees may elect to use scheduled PTO or grandfathered sick leave to cover the first three days of absence due to an industrial injury. Such use is not permitted when income benefits are available for this time period. In addition, employees may use scheduled PTO for follow-up medical appointments related to an industrial injury, or to make up differences between state mandated benefits and regular pay.
 - iii. **Family Sick.** Unscheduled PTO is available when employees are required to provide temporary assistance in situations where injury or illness of an immediate family member prevents them from coming to work. Immediate family members include spouse; child (includes step, adopted, natural or adult child) or grandchild (includes step, adopted or natural); parent (includes step, adoptive or natural), guardian or grandparent; sibling (step, natural or adopted); or in-laws (includes parent-in-law, son-in-law and daughter-in-law). It does not include uncle, aunt, niece, nephew or cousin.
2. **Documentation.** If absence due to illness or injury extends beyond three (3) working days' duration, or if a pattern of unscheduled absenteeism due to illness or injury exists, the employee may be required, at the option of the Department Director, to submit a medical certification signed by a physician stating the nature of the illness or injury; that the employee has been incapacitated from work for the period of the absence; and that the employee is once again physically able to perform his or her duties.
3. **Medical Evaluation.** The City may require a medical evaluation or nursing visit if the City deems it so desirable. The expense of such medical examination or nursing visit shall be paid by the City.

C. Employees will only be compensated for utilizing leave which meets one of the above definitions. Absences not meeting one of the above definitions will be considered unexcused absences and may result in disciplinary action.

18.4 Attendance Standards. The City of Kennewick expects regular attendance from all employees. Excessive unscheduled absenteeism affects performance both of the individual and the broader organization in many ways: lack of availability for customers and clients; lost productivity; missed deadlines or deliverables; impact on other employees' deliverables, productivity or morale; added payroll and overtime costs.

- A. 2% Guideline. Based on national statistics, the City considers unscheduled absenteeism exceeding two percent (2%) of scheduled shifts (or hours) over a rolling annual period (approximately 40 hours for a full time employee) to be outside the normal range. Accordingly, unscheduled absenteeism above two percent (2%) may lead to coaching and/or discipline. This guideline applies to scheduled overtime as well as regular shifts.
- B. Unscheduled absenteeism will be monitored against the two percent (2%) guideline for all employees. An employee's job may be jeopardized by frequent or prolonged absences from work. Employees are expected to discuss with their crewleader or supervisor any circumstance that will affect their ongoing attendance. In some cases, this may suggest the need for adjusted work hours, change in pay status, part-time status, or leave of absence.
- C. Failing to report to work or reporting late without notifying a crewleader or supervisor within 30 minutes of the beginning of their scheduled work shift may result in discipline regardless of whether the absences exceed two percent.
- D. Relation to PTO. The availability of PTO for an absence does not mean that the absence will not be considered toward excessive absenteeism. An employee may receive compensation for using PTO which could also subject the employee to counseling or discipline for excessive absences.
- E. Protected Leave. Protected leaves includes leave authorized by federal or state law, including the Family & Medical Leave Act (FMLA), Washington Family Care Act (WFCA) and other applicable pregnancy leave and military leave statutes. An employee may not be subject to discipline for exercising his or her right to protected leave. Therefore, any protected leave for which the employee has provided appropriate notice and documentation will not count toward the two percent (2%) guideline defined above.
- F. FMLA. In the case of a serious injury or illness, employees will make application for leave under the FMLA no later than fifteen (15) work days in the case of a personal illness or injury and no later than five (5) work days in the case of an immediate family member's illness or injury. The first fifteen (15) or five (5) days, respectively, may be excluded from the amount of leave authorized by the FMLA at the employee's discretion. When an employee is absent due to an immediate family member's illness or injury, the employee will report back to work as promptly as possible.

18.5 Bereavement Leave. Employees will receive three days of bereavement leave with pay for a death in the immediate family. For the purpose of this policy, immediate family includes:

- Spouse or domestic partner;
- Children, including adopted children, step children, and children-in-law;
- Parents, including adoptive parents, step parents, parents-in-law, and legal guardians;
- Grandparents, including parents of step parents and adoptive parents; and
- Siblings, including step siblings and siblings-in-law.

Employees may request to use accrued paid time off if they need additional time away from work, or if they need time away from work related to a non-covered individual.

ARTICLE 19 – JURY DUTY

19.1 Employees under this Agreement who lose work because of absence on jury duty will be paid the difference between the regular straight time earnings which would otherwise have been received and their reimbursement as jurors, exclusive of mileage reimbursement, up to a maximum of eight (8) hours for each day. Provided, however, an employee may elect to fulfill such a call or subpoena on accrued PTO and retain the full amount received for such services. The employee shall report promptly to work if he/she is excused from jury duty or witness service during the work day.

ARTICLE 20 – FORCE REDUCTIONS AND REHIRE

20.1 Employees laid off due to force reduction will retain their established seniority for two (2) years. Seniority shall be considered broken if an employee is offered re-employment within two (2) years of layoff and he/she refuses the same.

The City shall notify, by certified mail to the employee's last known address, the employees on laid off status of any bargaining unit job opening the employee is qualified to fill. Upon notification, the employee must accept or reject the open position within fourteen (14) calendar days of receipt of the City's notice, regardless of who signed for the certified notice, and report to work within fourteen (14) calendar days after giving notification to the City. Failure to do so will result in forfeiture of all recall rights.

20.2 An employee who is laid off pursuant to this Article may elect to cash out accumulated and unused grandfathered sick leave pursuant to Section 14.2, or may allow the accumulation to remain on the records in anticipation of being recalled. If sick leave is cashed out accordingly and the employee is later recalled, the employee shall have no accumulated grandfathered bank of sick leave. However, if the employee is not recalled within two (2) years of layoff, the City shall cash out accumulated and unused sick leave in accordance with Section 14.2 at the hourly rates in effect at the time of layoff.

20.3 If an employee has cashed out accumulated and unused grandfathered sick leave pursuant to this Article and is later recalled, the employee may later only cash out accumulated and unused grandfathered sick leave in excess of what had previously been cashed out.

20.4 Employees who have been laid off, who wish to return to work, shall keep the City advised of their current address.

20.5 Laid off employees rehired within two years of layoff shall have their previous service credit for time worked carried forward for purposes of determining seniority and PTO accrual rates.

ARTICLE 21 TRANSFERS

21.1 When an employee is transferred to any position in which he/she has no previous experience, he/she shall be given a reasonable break-in period with an experienced person in the position.

ARTICLE 22 – LEAVE OF ABSENCE

22.1 The City Manager may authorize unpaid leaves of absence up to a maximum duration of one (1) year, except in the case of a leave necessitated by involuntary conscription or recall to duty in the Armed Forces of the United States, in which case the leave may extend to cover the full period of conscription or recall. Upon expiration of such approved leave, the employee shall be reinstated in the position agreed to in the leave approval at the time the leave was granted. Failure on the part of the employee to report for duty promptly at the expiration of such leave shall be regarded as voluntary resignation.

22.2 Upon expiration of an approved leave of absence or sick leave, an employee shall be reinstated in the position held at the time the leave was granted. Only the employee(s) advanced to fill the temporary vacancies created by the leave of absence shall be affected, and in such case, shall return to the jobs they left. Employees who are granted leave of absence shall not lose their established seniority.

22.3 Unless absent due to a work-related injury, employees will not continue to accumulate seniority during periods of unpaid leaves of absence.

ARTICLE 23 – SENIORITY

23.1 Employees shall have their seniority determined by their total length of continuous full-time service within the bargaining unit. In the case where two (2) or more employees start work on the same date, the date of application for employment shall establish the position on the seniority list.

23.2 Any regular employee who transfers or is promoted becomes a special probationary employee upon the date of the transfer or promotion. An employee who transfers to another position shall serve a three (3) month probationary period; an employee who is promoted shall serve a six (6) month probationary period. This special probationary period may be adjusted upward to properly allow for any authorized leaves of absence or other approved breaks in service.

If the special probationary employee fails to demonstrate that he/she can completely and satisfactorily perform the job within the prescribed special probationary period, the City may retain the employee at his/her present position, or at its discretion, return the employee to his/her former position classification, without any loss in seniority. Any other employees who transferred or were promoted following, and as a result of this employee's transfer or promotion, shall also be returned to their former position and pay status. The special probationary employee may voluntarily move back to his/her former position within the applicable probationary period. This request must be made in writing and approved by the City and Union before the employee is permitted to return. Any other employees who transferred or were promoted following, and as a result of this employee's transfer or promotion, shall also be returned to their former position and pay status.

23.3 All qualified regular full-time and part-time City employees may apply for job openings within the divisions covered by this Agreement (this does not include seasonal or temporary personnel).

The application process for all upgrade positions, except those in a divisional lead role, including but not limited to Crewleader and Sr. Signal Electrician, shall be as follows:

- An evaluation of the employee's job application. The application must be fully completed and must demonstrate the employee's knowledge, skills and abilities, as well as the employee's ability to meet the minimum qualifications as set forth in the job description for the position for which the employee is applying. This portion shall be worth 25 points.
- A combination of tests, written and/or demonstrative, relevant to the position for which the employee is applying. The employee must obtain a score of 70% or greater on each component. At least one union representative will be present to observe any demonstrative test in order to ensure consistency. This portion will be worth 45 points.
- An oral interview. The employee must obtain a consensus score of 70% or greater based upon a standardized set of questions, including individualized follow-up. At least one union representative will be included on the interview panel. This portion will be worth 30 points.
- A review of the employee's personnel file. The employee's personnel file must demonstrate a satisfactory work history. Poor performance evaluations and/or formal discipline issued within 24 months of application may disqualify an employee. However, an employee will be entitled to address such issues with the hiring manager and/or Human Resources Director prior to disqualification. This portion will be worth 20 points.
- Seniority points. The employee will receive one (1) seniority point for each consecutive year of service to the City (total months divided by twelve), not to exceed 10 points.

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Following City selection of a candidate for promotion, disqualified employee(s) may question the candidate selection before the Union Stewards organization within ten (10) days of the selection. The Union Stewards will determine the merit of the complaint and whether a sufficient basis exists to register a formal grievance with the City. Such issues shall be subject to the grievance and arbitration procedures as outlined in Article 6 of this Agreement.

23.4 The City will post bid jobs prior to probable openings. Employees shall have an opportunity to apply, and the selection process will commence based on Section 23.3 of this Agreement. The posting shall identify the initial location and initial shift of the assignment.

23.5 In the event an employee covered under this Agreement is promoted into a supervisory position not covered by this Agreement, he/she shall continue to earn seniority in the classification from which he was promoted. In the event the employee is later demoted to a lower classification and/or position, his/her latest earned seniority shall be compared with the employee(s) currently occupying the classification and/or position to determine who shall fill such position.

23.6 Actual job performance, skills, abilities, training, and experience shall be considered in any decision to determine upgrades on a temporary basis. If the qualifications of bargaining unit employees are relatively equal, seniority within the bargaining unit shall govern.

ARTICLE 24 – JOB-REQUIRED LICENSES AND CERTIFICATIONS

24.1 ~~Employees will obtain initial job required licenses and certifications on the employees' time and at the employees' expense except that the City will permit employees to take first time certification tests during work hours. The City maintains authority to require job related certification(s) in each classification. The type of certification is at the discretion of the City's choosing. The City shall pay two attempts by each employee to pass approved / required certification exam (excluding CDL requirements).~~

- a. ~~An employee, who fails to pass a certification exam after a second attempt, will be responsible for the costs and associated time (by utilizing PTO) with any future training and attempt to pass that exam.~~
- b. ~~The City shall provide training for employees to accumulate continuing education units required to maintain approved / required certifications. If any training / education requirement is only available out of town, the City shall cover the cost of training and comply with all governing laws regarding travel and lodging requirements.~~
- c. ~~Employees required to obtain a commercial driver's license (CDL) may be permitted to use appropriate City vehicles provided they first obtain a CDL learner's permit.~~

~~24.1 Employees who do not successfully pass on the first attempt will use paid time off to take any necessary re-tests during regular working hours. Employees required to obtain a commercial driver's license (CDL) will be permitted to use appropriate City vehicles provided they first obtain a CDL learner's permit.~~

24.2 Employees who fail to obtain job-required certification by the deadline established in the job offer letter but within the following sixty (60) days will have the duration of their current salary step extended by six months. Employees who fail to obtain job-required certification more than sixty (60) days after the deadline established in the job offer letter will be separated from employment.

24.3 Employees will maintain job-required or other approved certification, including any required continued education, during working hours and at the City's expense. This includes the costs of

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CDL medical exams and costs of licensing exceeding the costs of non-commercial driver's licenses.

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24.4 Employees, who earn job-related certifications and subsequently transfer to another division within the bargaining unit, may will be permitted to maintain certification upon Director approval based on business needs, including any required continued education, during work hours and at the City's expense.

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~~24.5~~ 24.5 City of Kennewick employees who possess a CDL agree to be bound by all state and federal laws and regulations that govern acquisition, maintenance, and disqualification of a commercial driver's license, including but not limited to RCW 46.25.090 as contained in Kennewick Administrative Code (KAC) 2-200-050.

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24.624.5 The City and the Union will both make good faith efforts to explore alternate possibilities for individuals unable to maintain a CDL due to medical exclusions. Each case will be evaluated based on the position, needs of the City, and the affect movement may create on other employees. ~~The Union and City shall both agree to any proposed change due to an employee's inability to maintain a CDL.~~ In the event where all alternate possibilities puts a hardship on the City, the City reserves the right to terminate the individuals' employment.

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24.724.6 Effective January 1, 2017, employees may use the tuition reimbursement program to seek reimbursement of CDL driving school tuition expenses relating to obtaining or upgrading a CDL as a condition of employment. Employees are eligible to receive a lifetime total of seven-hundred and fifty dollars (\$750.00) toward tuition reimbursement during the course of their employment with the City.

ARTICLE 25 – AFFIRMATIVE ACTION

25.1 The City of Kennewick's Affirmative Action Plan shall be made, in its entirety, a part of this Agreement by reference. The Union and the City will cooperate to ensure that its goals and objectives are met in as much as possible and practical.

ARTICLE 26 – ENTIRE AGREEMENT CLAUSE

26.1 This Agreement, as expressed in writing, constitutes the entire Agreement between the parties, and no oral statements shall add to or supersede any of its provisions.

26.2 The parties acknowledge that each has had unlimited right and opportunity to make demands and proposals with respect to any matter deemed a proper subject for collective bargaining, and the results of the exercise of that right are set forth in this Agreement.

ARTICLE 27 – SAVINGS CLAUSE

27.1 Should any Article, Section, or portion thereof, of this Agreement be held unlawful and unenforceable by a state statute, federal statute, or any court of competent jurisdiction, such decision shall apply only to the specified Article, Section, or portion thereof directly specified in the decision, and all other provisions shall remain in full force and effect.

ARTICLE 28 – DRUGFREE WORKPLACE

28.1 The Union and City understand the importance of maintaining a drug and alcohol free workplace. Employees under this collective bargaining agreement shall comply with the City's Drugfree Workplace Policy, ~~as revised 6/1/98~~, and those DOT-covered employees possessing and utilizing CDLs for City business will be subject to random and reasonable suspicion drug testing in accordance with the City's Drug and Alcohol Testing Policy.

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DATED AT KENNEWICK, WASHINGTON this 10th day of December, 2021.

INTERNATIONAL UNION OF
OPERATING ENGINEERS,
LOCAL NO. 280

DocuSigned by:
Dean Bushey
756248549C944410
BUSINESS MANAGER

DocuSigned by:
Cory Stratton
9020207824710E4F5
BUSINESS REPRESENTATIVE

CITY OF KENNEWICK,
WASHINGTON

DocuSigned by:
Don Britain
68500C7DCC3449...
MAYOR

DocuSigned by:
Marie E. Mosley
218EC87A54DE4F
CITY MANAGER

DocuSigned by:
Terri L. Wright
280A557110E84E7
ATTEST: CITY CLERK

EXHIBIT "A"

January 1, 20~~25~~~~22~~ – The City will implement the attached salary schedule (Exhibit A) with no additional increase to base wages.

January 1, 20~~26~~~~23~~ – The City will increase base wages by 100% of CPI-U, All-Cities (July-July), with a minimum of ~~32.5~~% and maximum of 4%.

January 1, 20~~27~~~~24~~ – The City will increase base wages by 100% of CPI-U, All-Cities (July-July), with a minimum of ~~32.5~~% and maximum of 4%.

January 1, 2028 – The City will increase base wages by 100% of CPI-U, All-Cities (July-July), with a minimum of 3% and maximum of 4%

Grounds M&CCs employed prior to January 1, 2022 who were required to obtain a CDL as a condition of employment and who continue to maintain a CDL will receive an additional \$0.44/hour in pay for the duration of their employment as Parks M&CCs.

An employee promoted to a position in a higher range shall be advanced to the first step in that range which provides a wage increase.

The City will authorize specialty pay in the amount of \$1.00 per hour for hours spent by employees actively engaged in waste pond work. This applies to time spent by employees in the boats in the City's lagoon or HRTs.

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2025 IUOE Wage Scale						
	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
M&C Craftworker - Grounds	27.44	28.54	29.67	30.87	32.11	32.74
M&C Craftworker - Grounds (Grandfathered)	27.89	28.99	30.13	31.32	32.56	33.20
M&C Craftworker - Construction	28.26	29.39	30.57	31.78	33.05	33.71
General Craftworker Grounds	33.25	34.26	35.29	36.33	37.43	38.55
General Craftworker Construction	33.73	34.76	35.80	36.86	37.98	39.11
Mechanic I	33.53	34.21	34.89	35.59	36.29	37.02
Mechanic II	35.16	35.87	36.58	37.32	38.07	38.82
Mechanic III	36.80	37.53	38.29	39.05	39.83	40.62
Crewleader - Lead Mechanic	37.88	38.65	39.43	40.20	41.00	41.83
Crewleader - Grounds	37.88	38.65	39.43	40.20	41.00	41.83
Crewleader - Constuction	38.44	39.21	40.00	40.79	41.60	42.44
Plant Operator Level II	35.02	35.73	36.44	37.16	37.90	38.67
Plant Operator Level III	37.26	38.01	38.75	39.55	40.33	41.14
Plant Operator Level IV	39.57	40.36	41.17	41.99	42.83	43.68
Lead Plant Operator	43.01	43.86	44.74	45.64	46.56	47.48
Signal Technician	39.32	40.09	40.90	41.71	42.56	43.41
Signal Electrician / ACT Specialist	44.72	45.63	46.53	47.46	48.42	49.38
Sr. Signal Electrician / Sr. ACT Specialist	49.58	50.57	51.59	52.61	53.66	54.74

Council Agenda Coversheet	Item Number: 7.c.	Date: 11/5/2024	Category: Other
	Item Type:	Contract/Agreement/Lease	
	Subject:	Wastewater Treatment Plant Phase 2 Project	
	Department:	Public Works	
	Project #:	P2209	
<u>Recommendation</u>			
Staff recommends the City Council authorize the City Manager to sign the Progressive Design Build (PDB) Agreement Amendment #2 with Merrell Bros, Inc. for the WWTP Phase 2, Step 2 construction, accepting the guaranteed maximum price (GMP) of \$43,580,974.			
<u>Motion for Consideration</u>			
Motion to authorize the City Manager to sign the Progressive Design Build (PDB) Agreement Amendment #2 with Merrell Bros, Inc. for the WWTP Phase 2, Step 2 construction, accepting the guaranteed maximum price (GMP) of \$43,580,974.			
<u>Summary</u>			
In July 2021, the City presented to the State of Washington's Capital Projects Advisory Review Board - Project Review Committee (PRC) seeking authorization to deliver the WWTP Phase 2, Florida Green treatment process by way of Progressive Design Build (PDB) alternative delivery method. On July 23, 2021, the City was granted authorization by the PRC to proceed and follow the State's established regulatory criteria as outlined in RCW 39.10.280.			
On March 7, 2023, City Council authorized "Step 1" for design of the WWTP Phase 2. On August 15, 2023, City Council authorized Amendment #1 allowing for the procurement of several early release items as well as dredging services of lagoon #2. On March 19, 2024, City Council authorized a Supplement to Amendment #1 increasing the allowance for dredging of lagoon #2.			
This Amendment #2 allows for construction of the project to begin as well as acceptance of the Guaranteed Maximum Price (GMP) of \$43,580,974.			
<u>Alternatives</u>			
None recommended			
<u>Fiscal Impact</u>			
Project Funding Sources			
\$29.1 million, State Revolving Fund (SRF)			
\$3.7 million, additional SRF anticipated (10% rule)			
\$4.3 million, Spring 2024 Budget Adjustment			
\$1.6 million, Fall 2024 Budget Adjustment			
\$1.0 million, American Rescue Plan Act (ARPA)			
\$3.9 million, Sewer Enterprise Fund			
<u>Attachments:</u>			
1. Memo			
2. Presentation			
3. Agreement			
4. Exhibit A			
5. Exhibit B			



Leading the Way

MEMORANDUM

Public Works Department

Date: October 30, 2024
To: Kennewick City Council
From: Jeremy Lustig, PE, Deputy Public Works Director
Subject: **WWTP Phase 2 Biosolids – Project Funding**

The purpose of this memo is to depict and outline the funding for the WWTP Phase 2 project.

The Guaranteed Maximum Price (GMP) from the Progressive Design Build (PDB) contractor, establishing the total project cost, is \$43,580,974.

Below are the anticipated funding sources for this project:

- \$29.1 million, State Revolving Fund (SRF)
 - \$6.1 million (Green Project – forgivable)
- \$3.7 million, additional SRF anticipated (10% rule)
- \$4.3 million, Spring 2024 Budget Adjustment
 - \$2.3 million (Sewer Area Charges)
 - \$2.0 million (O&M Budget for dredging)
- \$1.6 million, Fall 2024 Budget Adjustment
 - \$1.6 million 2023/2024 CIP canceled
- \$1.0 million, American Rescue Plan Act (ARPA)
- \$3.9 million, Sewer Enterprise Fund

PUBLIC WORKS

1010 E. Chemical Drive • PO Box 6108 • Kennewick, WA 99336-0108
(509) 585-4413 • Fax (509) 585-4451 • Jeremy.Lustig@ci.kennewick.wa.us

Waste Water Treatment Plant (WWTP) Phase 2 Biosolids Project

Council Workshop Update

November 5, 2024

Jeremy J. Lustig, PE, Deputy Public Works Director



Waste Water Treatment Biosolids Management

Previous Council updates and actions:

- *August 23, 2022, City Council Workshop*
 - “Florida Green” approach selected
 - Alternative Project Delivery Method (PDB)
 - Department of Ecology Funding (SRF) - \$29.1 Million
- *March 7, 2023, City Council Meeting*
 - PDB Step 1 (Design) Agreement with Merrell Bros, Inc
 - Merrell Bros, Inc. Patent and Technology License Agreement
- *August 15, 2023, City Council Meeting*
 - Amended the PDB Step 1 agreement with Merrell Bros, Inc
 - Authorized early release procurement of \$13.3 million
- *March 19, 2024, City Council Meeting*
 - Supplemental Amendment to PDB Step 1 agreement with Merrell Bros, Inc
 - Increased early release from \$13.3 to \$14.4 million
- *October 22, 2024, City Council Workshop*
 - Design at 100%, ready to progress into construction
 - Guaranteed Maximum Price (GMP)



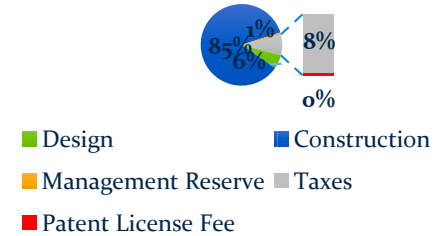
Waste Water Treatment Biosolids Management

□ *Guaranteed Maximum Price (GMP) @ \$43,580,974*

- \$2,392,184 Design
- \$37,241,817 Construction
- \$336,000 Management Reserve
- \$3,449,272 Taxes
- \$161,701 Patent License Fee



GMP - Breakdown



□ *Project Funding - \$43.6 M*

- \$29.1 million State Revolving Fund (SRF)
- \$3.7 million Additional SRF – anticipated (10% rule)
- \$4.3 million Spring 2024 Budget Adjustment
- \$1.6 million Fall 2024 Budget Adjustment
- \$1.0 million America Rescue Plan Act (ARPA)
- \$3.9 million Enterprise Ending Fund Balance

FUNDING



Waste Water Treatment Biosolids Management

□ Schedule

- | | |
|--|-------------------------|
| □ CC Award PDB – Step 1 (Pre-Construction) | Complete |
| □ Accept Guaranteed Maximum Price (GMP) & CC Award PDB – Step 2 (Construction) | TONIGHT |
| □ Construction to begin immediately | November/ December 2024 |
| □ Project Completion | 24 months (end of 2026) |



Questions?



Progressive Design-Build Contract Amendment
GMP Amendment #2 (the Contract Price Amendment)

In accordance with DBIA Document No. 544 Progressive Design-Build Agreement between Owner (the City of Kennewick) and Progressive Design-Builder (Merrell Bros., Inc.), and DBIA Document 535 Standard Form of General Conditions of the Contract Between Owner and Design-Builder, dated on or about March 7, 2023 (the PDB Agreement) for the Wastewater Treatment Plant (WWTP) Step 2 Upgrades, the Progressive Design-Builder and the Owner hereby agree to amend the PDB Agreement as follows:

1. The enclosed terms set forth in **Attachment A** from the Washington State Department of Ecology shall be fully incorporated into the PDB Agreement, as if fully set forth therein. In the event of conflict within the PDB Agreement, and **Attachment A**, the clauses set forth in **Attachment A** shall take precedence.
2. As set forth in Section 2.3 of the PDB Agreement, **Attachment B** hereto shall constitute the Guaranteed Maximum Price amendment to the PDB Agreement, or "Contract Price Amendment" as referenced in the PDB Agreement. In developing the Guaranteed Maximum Price, Progressive Design-Builder relied on the following documents: *Construction plans, City construction standards, delegated design/vendor pricing, quote received for specific industry sub-contractors, and technology licensing agreement.*

The Substantial Completion dates for this Project shall be twenty-four (24) months after the Owner issues a Notice to Proceed with the work.

3. As further referenced in the PDB Agreement, the following section 7.6 is to be inserted and fully incorporated into the PDB Agreement:

7.6 The Guaranteed Maximum Price.

7.6.1 Progressive Design-Builder guarantees that it shall not exceed the GMP of \$43,580,974. Documents used as a basis for the GMP shall be identified in the Contract Price Amendment to this Agreement. Progressive Design-Builder does not guarantee any specific line item provided as part of the GMP, and Progressive Design-Builder has the sole discretion to apply payment due to overruns in one line item to savings due to underruns in any other line item. Progressive Design-Builder agrees, however, that it will be responsible for paying all costs of completing the Work which exceed the GMP, as adjusted in accordance with the Contract Documents.

7.6.2 The GMP does not include any Contingency funds. Instead, it includes a 1% "Management Reserve Fund" that shall only be used by the Progressive Design-Builder for costs associated with Owner requested changes or reasonably unforeseen changes to conditions. Progressive Design-Builder shall provide Owner notice of all anticipated charges against the Management Reserve Fund.

7.6.3 Savings.

7.6.3.1 If the sum of the actual Cost of the Work and Progressive Design-Builder Fee is less than the GMP, as such GMP may have been adjusted over the course of the Project, the difference ("Savings") shall be shared as follows:

Fifty percent (50%) to Progressive Design-Builder and
Fifty percent (50%) to Owner.

7.6.3.2 Savings shall be calculated and paid as part of Final Payment under Section 8.4 hereof, with the understanding that to the extent Progressive Design-Builder incurs costs after Final Completion which would have been payable to Progressive Design-Builder as a Cost of the Work, the parties shall recalculate the Savings in light of the costs so incurred, and Progressive Design-Builder shall be paid by Owner accordingly.

Upon execution, this Amendment becomes a Contract Document issued in accordance with DBIA Document No. 455 and 535, as modified by the Parties. Except as specifically amended herein, the remaining provisions of the Agreement remain in full force and effect.

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the date identified below.

Progressive Design Builder:

Owner:

Merrell Bros, Inc.

City of Kennewick

By: Ted Merrell, President

Dated: _____

By: Erin Erdman, City Manager

Dated: _____

EXHIBIT A



WASHINGTON STATE DEPARTMENT OF ECOLOGY
WATER POLLUTION CONTROL REVOLVING FUND

SPECIFICATIONS INSERT

Revised 1/22/21

The following clauses will be incorporated into construction contracts receiving financial assistance from the Washington State Department of Ecology Water Pollution Control Revolving Fund. In the event of conflict within the contract these clauses shall take precedence

Required Bid Submittals

The following submittals are required to be submitted with the bid proposal:

- Certification Of Nonsegregated Facilities (attachment 3)
- DBE Subcontractor Utilization Form (EPA Form 6100-4)
- One copy of DBE Subcontractor Performance Form (EPA Form 6100-3) for each DBE subcontractor.
- Complete Bidders List.

Compliance with State and Local Laws

The Contractor shall assure compliance with all applicable federal, state, and local laws, requirements, and ordinances as they pertain to the design, implementation, and administration of the approved project.

State Interest Exclusion

It is anticipated that this project will be funded in part by the Washington State Department of Ecology . Neither the State Of Washington nor any of its departments or employees are, or shall be, a party to this contract or any subcontract.

Third Party Beneficiary

Partial funding of this project is being provided through the Washington State Department of Ecology Water Pollution Control Revolving Fund. All parties agree that the State of Washington shall be, and is hereby, named as an express third-party beneficiary of this contract, with full rights as such.

Access to the construction site and to records

The contractor shall provide for the safe access to the construction site and to the contractor's records by Washington State Department of Ecology and Environmental Protection Agency (EPA) personnel.

The Contractor shall maintain accurate records and accounts to facilitate the Owner's audit requirements and shall ensure that all subcontractors maintain auditable records.

These Project records shall be separate and distinct from the Contractor's other records and accounts.

All such records shall be available to the Owner and to Washington State Department of Ecology and EPA personnel for examination. All records pertinent to this project shall be retained by the Contractor for a period of three (3) years after the final audit.

Protection of the Environment

No construction related activity shall contribute to the degradation of the environment, allow material to enter surface or ground waters, or allow particulate emissions to the atmosphere, which exceed state or federal standards. Any actions that potentially allow a discharge to state waters must have prior approval of the Washington State Department of Ecology.

Funding Recognition

All site-specific projects must have a sign of sufficient size to be seen from nearby roadways acknowledging department financial assistance and left in place throughout the life of the project. Department logos must be on all signs and documents. Logos will be provided as needed.

Inadvertent Discovery Of Archeological Resources

The contractor shall obtain a copy of the Inadvertent Discovery Plan from the Project Owner. The contractor shall keep a copy of the inadvertent discovery plan for the project on the work site at all times. The contractor shall immediately stop all work if human remains, cultural, or archeological resources are discovered in the course of construction. The contractor shall follow the inadvertent discovery plan in dealing with the human remains, cultural, or archeological resources.

Use Of American Iron And Steel

This provision applies to projects for the construction, alteration, maintenance, or repair of a "treatment works" as defined in the Federal Water Pollution Control Act (33 USC 1381 et seq.). This provision does not apply if the engineering plans and specifications for the project were approved by the Ecology prior to January 17, 2014.

The Contractor acknowledges to and for the benefit of the Project Owner and the State of Washington that it understands the goods and services under this Agreement are being funded with monies made available by the Water Pollution Control Revolving Fund which contains provisions commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project be produced in the United States ("American Iron and Steel Requirements") including iron and steel products provided by the Contractor pursuant to this Agreement. "Iron and Steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

The Contractor hereby represents and warrants to and for the benefit of the Project Owner and the State that:

- (a) the Contractor has reviewed and understands the American Iron and Steel Requirements,
- (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirements, unless a waiver of the requirements is approved, and
- (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirements, as may be requested by the Project Owner or the State.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Project Owner or State to recover as damages against the Contractor any loss, expense or cost (including without limitation attorney's fees) incurred by the Project Owner or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Project Owner). While the Contractor has no direct contractual privity with the State, as a lender to the Project Owner for the funding of its project, the Project Owner and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of the Agreement necessary to give this paragraph force or effect shall be amended or waived without the prior written consent of the State.

Prevailing Wage

The work performed under this contract is subject to the wage requirements of the Davis-Bacon Act. The Contractor shall conform to the wage requirements prescribed by the federal Davis-Bacon and Related Acts which requires that all laborers and mechanics employed by contractors and subcontractors performing on contracts funded in whole or in part by SRF appropriations in excess of \$2000 pay their laborers and mechanics not less than the prevailing wage rates and fringe benefits, and determined by the Secretary of Labor, for corresponding classes of laborers and mechanics employed on similar projects in the area. Attachment 1 to this specification insert and an up to date wage determination shall be included in full into this contract and in any subcontract in excess of \$2,000. Wage determinations can be found at <http://www.wdol.gov>.

The Contractor agrees that the Contractor is legally and financially responsible for compliance with the Davis-Bacon Act wage rules. All laborers and mechanics employed by contractors and subcontractors employed as part of this contract shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

Certification Regarding Suspension, Debarment, Ineligibility Or Voluntary Exclusion

1. The CONTRACTOR, by signing this agreement, certifies that it is not suspended, debarred, proposed for debarment, declared ineligible or otherwise excluded from contracting with the federal government, or from receiving contracts paid for with federal funds. If the CONTRACTOR is unable to certify to the statements contained in the certification, they must provide an explanation as to why they cannot.

2. The CONTRACTOR shall provide immediate written notice to the Department if at any time the CONTRACTOR learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.
3. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department for assistance in obtaining a copy of those regulations..
4. The CONTRACTOR agrees it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under the applicable Code of Federal Regulations, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction.
5. The CONTRACTOR further agrees by signing this agreement, that it will include this clause titled “Certification Regarding Suspension, Debarment, Ineligibility Or Voluntary Exclusion” without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
6. Pursuant to 2CFR180.330, the CONTRACTOR is responsible for ensuring that any lower tier covered transaction complies with certification of suspension and debarment requirements.
7. CONTRACTOR acknowledges that failing to disclose the information required in the Code of Federal Regulations may result in the delay or negation of this funding agreement, or pursuance of legal remedies, including suspension and debarment.
8. CONTRACTOR agrees to keep proof in its agreement file, that it, and all lower tier recipients or contractors, are not suspended or debarred, and will make this proof available to the Department upon request. RECIPIENT/CONTRACTOR must run a search in <http://www.sam.gov/> and print a copy of completed searches to document proof of compliance.

This term and condition supersedes EPA Form 5700-49, “Certification Regarding Debarment, Suspension, and Other Responsibility Matters.”

Disadvantaged Business Enterprises

General Compliance (40 CFR Part 33).

The contractor shall comply with the requirements of the Environmental Protection Agency’s Program for Participation By Disadvantaged Business Enterprises (DBE) 40 CFR Part 33.

Non-discrimination Provision (40CFR Appendix A to Part 33).

The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR

part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

The contractor shall comply with all federal and state nondiscrimination laws, including, but not limited to Title VI and VII of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, and Chapter 49.60 RCW, Washington's Law Against Discrimination, and 42 U.S.C. 12101 et seq, the Americans with Disabilities Act (ADA).

Six Good Faith Efforts (40 CFR Part 33 Subpart C).

The contractor agrees to make the following good faith efforts whenever procuring subcontracts, equipment, services and supplies. The contractor shall retain records documenting compliance with the following six good faith efforts.

1. Ensuring Disadvantaged Business Enterprises are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing Disadvantaged Business Enterprises on solicitation lists and soliciting them whenever they are potential sources. Qualified Women and Minority business enterprises may be found on the Internet at www.omwbe.wa.gov or by contacting the Washington State Office of Minority and Women's Enterprises at (866) 208-1064.
2. Making information on forthcoming opportunities available to Disadvantaged Business Enterprises and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by Disadvantaged Business Enterprises in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of thirty (30) calendar days before the bid or proposal closing date.
3. Considering in the contracting process whether firms competing for large contracts could subcontract with Disadvantaged Business Enterprises. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by Disadvantaged Business Enterprises in the competitive process.
4. Encourage contracting with a consortium of Disadvantaged Business Enterprises when a contract is too large for one of these firms to handle individually.
5. Using services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
6. If the prime contractor awards subcontracts, requiring the subcontractors to take the six good faith efforts in paragraphs 1 through 5 above.

MBE/WBE Reporting (40 CFR Part 33 Parts 33.302, 33.502 and 33.503).

1. The contractor shall complete the DBE Subcontractor Utilization Form (EPA Form 6100-4).
2. The contractor shall require all DBE subcontractors to complete the DBE Subcontractor Performance Form (EPA Form 6100-3). The DBE Subcontractor Performance Form is only required to be completed by certified DBE subcontractors.

3. The contractor shall submit DBE Subcontractor Utilization Form (EPA Form 6100-4) and all completed DBE Subcontractor Performance Form(s) (EPA Form 6100-3) as part of the bid, or within one hour after the published bid submittal time (consistent with RCW 39.30.060)
4. The contractor shall provide DBE Subcontractor Participation Form (EPA Form 6100-2) to all DBE subcontractors. These subcontractors may submit Subcontractor Participation Form (EPA Form 6100-2) to the EPA Region 10 DBE coordinator in order to document issues or concerns with their usage or payment for a subcontract.

The 6100 forms can be found at:

<https://ecology.wa.gov/About-us/How-we-operate/Grants-loans/Find-a-grant-or-loan/Water-Quality-grants-and-loans/Facility-project-resources>

Bidders List (40 CFR Part 33 part 33.501)

All bidders shall submit the following information for all firms that bid or quote on subcontracts (including both DBE and non-DBE firms) as part of the bid, or within one hour after the published bid submittal time (consistent with RCW 39.30.060).

1. Firm's name with point of contact;
2. Firm's mailing address, telephone number, and e-mail address;
3. The work on which the firm bid or quoted, and when the firm bid or quoted; and
4. Firm's status as an MBE/WBE or non-MBE/WBE.

Contract Administration Provisions (40 CFR part 33.302).

The contractor shall comply with the contract administration provisions of 40 CFR, Part 33.302.

1. The contractor shall pay its subcontractor for satisfactory performance no more than 30 days from the contractor's receipt of payment.
2. The contractor shall notify the owner in writing prior to any termination of a DBE subcontractor.
3. If a DBE subcontractor fails to complete work under the subcontract for any reason, the contractor shall employ the six good faith efforts when soliciting a replacement subcontractor.
4. The contractor shall employ the six good faith efforts even if the contractor has achieved its fair share objectives.

Equal Opportunity (EEO)

If this Contract exceeds \$10,000, the Contractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60.

Contractor's compliance with Executive Order 11246 shall be based on implementation of the Equal Opportunity Clause, and specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4.

Equal Opportunity Clause (41 CFR part 60-1.4(b))

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
3. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
7. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to

enter into such litigation to protect the interests of the United States.

Federal Equal Employment Opportunity Construction Contract Specifications
(Executive Order 11246 and 41 CFR part 60-4.3)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - i. Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - ii. Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - iii. Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - iv. American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction

contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading

- programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
 - g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated except that

- separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related

activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

Reporting Requirements (EEO-1)

On or before September 30 of each year, a contractor that is subject to Title VII of the Civil Rights Act of 1964, as amended, and that has 100 or more employees, shall file with the EEOC or its delegate an "Employer Information Report EEO-1". Instructions on how to file are available on the EEOC's website at <http://www.eeoc.gov/employers/eeo1survey/howtofile.cfm>. The contractor shall retain a copy of the most recent report filed.

Segregated Facilities (41 CFR part 60-1.8)

The contractor shall ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensuring that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. This obligation extends to all contracts containing the equal opportunity clause regardless of the amount of the contract. The term "facilities," as used in this section, means waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, wash rooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees; Provided, That separate or single-user restrooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

Attachments:

1. Wage Rate Requirements For Subrecipients
2. Current Wage Rate Determination (to be provided by project owner)
3. Certification Of Nonsegregated Facilities
4. Notice To Labor Unions Or Other Organization Of Workers: Non-Discrimination In Employment

EPA Form 6100-4, EPA Form 6100.3, EPA Form 6100-2

ATTACHMENT 1 - WAGE RATE REQUIREMENTS FOR SUBRECIPIENTS. (To be included in full in any contract in excess of \$2,000)

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Continuing Resolution with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact Lorraine Fleury at fleury.lorraine@epa.gov or at 215-814-2341 of EPA, Region III Grants and Audit Management Branch for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/whd/>

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Appropriations Act, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2012 Appropriations Act , the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.wdol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably

anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the subgrant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional

Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/whd/programs/dbra/wh347.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and

Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act.

These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/whd/america2.htm>.

ATTACHMENT 2

DAVIS-BACON WAGE RATE DETERMINATION

[SRF Assistance Recipient to insert applicable wage determinations here]

How to obtain a Wage Determination:

1. www.wdol.gov
2. Click “Selecting DBA WDs”
3. Select the State and county where the work will be performed
4. Select the “Construction Type”: Heavy, Building, Highway, or Residential
5. Click on one of the wage determinations. Verify that the wage determination displayed is the correct wage determination, and not for “Heavy Dredging”.
6. Select the text box displaying the Wage Determination and copy the text of the Wage Determination.
7. Click “Sign Up for Alert Service” to receive notification if the Wage Determination is updated.

When to update the wage determination:

1. If DOL updates the Wage Determination, you must update the Wage Determination through an addendum to the bid specifications.
2. If the update occurs less than 10 days prior to the date of bid opening, you are not required to update the Wage Determination.

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ATTACHMENT 3

CERTIFICATION OF NONSEGREGATED FACILITIES

(Applicable to federally assisted construction contracts and related subcontracts exceeding \$10,000 which are not exempt from the Equal Opportunity clause.)

The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor certified, further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work area, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or area, in fact, segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed contractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such, certification in this file.

Signature _____

_____ Date _____

Name and title of signer (please type)

[THIS FORM SHALL BE COMPLETED IN FULL AND SUBMITTED WITH THE BID PROPOSAL]

ATTACHMENT 4

NOTICE TO LABOR UNIONS OR OTHER ORGANIZATION OF WORKERS: NON-DISCRIMINATION IN EMPLOYMENT

TO: _____
(name of union or organization of worker)

The undersigned currently holds contract(s) with _____
(name of applicant)
_____ involving funds or credit of the U.S. Government or (a)
subcontract(s) with a prime contractor holding such contract(s).

You are advised that under the provisions of the above contract(s) or subcontract(s) and in accordance with Section 202 of Executive Order 11246 dated September 24, 1965, the undersigned is obliged not to discriminate against any employee or applicant for employment because of race, color, creed, or national origin. This obligation not to discriminate in employment includes, but is not limited to, the following:

EMPLOYMENT, UPGRADING, TRANSFER OR DEMOTION

RECRUITMENT AND ADVERTISING

RATES OF PAY OR OTHER FORMS OF COMPENSATION

SELECTION FOR TRAINING INCLUDING APPRENTICESHIP, LAYOFF OR
TERMINATION

This notice is furnished you pursuant to the provisions of the above contract(s) or subcontract(s) and Executive Order 11246.

Copies of this notice will be posted by the undersigned in conspicuous places available to employees or applicants for employment.

(contractor or subcontractor(s))

(Date)

EXHIBIT B

GUARANTEED MAXIMUM PRICE		
PROGRESSIVE DESIGN BUILDER	MERRELL BROS., INC.	DATE: October 15, 2024
	8811 W 500 N KOKOMO, IN 46901	
	Ted Merrell: 765.438.7374 ted@merrellbros.com	
	Ian Petrocco: 727.810.6708 ian.petrocco@merrellbros.com	
PROJECT	City of Kennewick WWTP Facility Plan Biosolids Alt 5	
PROJECT DESCRIPTION	Class A Biosolids via Solar Drying / Pasteurization	
CLIENT	The City of Kennewick	
CLIENT LOCATION	210 E. 6th AVE KENNEWICK, WA 99336	
PROJECT LOCATION	36 S NUTMEG STREET KENNEWICK, WA 99337	
CLIENT PROJ. NO. 82209		
ITEM NO.	DESCRIPTION	TOTAL COST
1	General Conditions	\$1,157,116
2	Surveying, as-builts	\$75,000
3	Greenhouses	\$2,322,900
3.1	Greenhouse, Connector, and OCU Foundations	\$2,121,713
4	Site work	\$618,623
5	Greenhouse odor control units	\$3,228,300
5.1	Crane, installs, ducting, glassing, installing filter carbon	\$100,000
6	Dewatering Filter Presses, (price for 3 units)	\$1,350,792
6.1	BFP Control Panels Extra Cost for Controls	\$38,500
6.2	Install filter presses, crane, tarp/protect	\$25,000
6.3	Serpentix pathfinder Conveyors	\$312,050
6.4	Install	\$15,000
6.5	Press pit grating	\$148,904
6.6	Install	\$7,500
6.7	Polymer Make-down	\$195,245
6.8	Install	\$5,000
7	Sludge Storage Tank	\$1,014,000
7.1	Foundation Preparation for SHT	\$35,320
8	Tank Process Equipment (Decant/Aeration/Mix/)	\$670,000
8.1	Installation of Process Equipment and supply of materials	\$776,300
8.3	Sludge Transfer Pumps	\$132,024
8.4	Installation of Sludge Transfer Pumps/Piping and supply of materials	\$332,700
9	Circulation Fans	\$255,483
9.1	Circulation Fans Installation	\$30,000
10	Electrical and Controls	\$1,875,347
10.1	Main Electrical Gear	\$312,556
10.2	VFD's, Panels, misc. electrical gear	\$699,108
11	Thermal Unit and Cyclone	\$839,800
11.1	Thermal Unit and Cyclone Installation	\$75,000
12	Feed Hopper	\$82,100
12.1	Catwalking Around Pasteurizer (Thermal Unit)	\$83,900

13	Water, Sewer, Reuse, Fire Line, lift station	\$1,668,000
14	Native American Archeologist Observer	\$100,000
15	Control Room	\$25,000
16	Process Building	\$595,991
16.0.1	Process Building Erection	\$624,303
16.0.2	Bulding Contractor General Conditions	\$364,243
16.1	Process Building additional cost for steel escalation	\$6,522
16.2	PEMB Foundation Processing Building	\$737,656
16.2.1	CMU 3-Hour rated fire wall	\$80,515
16.3	HVAC/Ventilation Process and Mixing Building	\$310,000
16.4	Plumbing	\$633,943
16.5	Office Area	\$865,582
16.6	Mixing Building	\$70,951
16.7	Mixing Building Foundations	\$50,842
16.8	Erection	\$34,142
17	Fire Sprinkler	\$89,803
18	Stormwater Drainage and Greenhouse storm drain	\$294,000
19	MAU Heat System	\$653,428
20	Tractor	\$100,000
20.1	Fork Lift	\$45,000
20.2	Wheeled Payloader	\$150,000
20.3	Tillers (2 units)	\$59,000
20.4	Lab Gear	\$12,500
20.5	Misc. Equipment	\$12,500
20.6	Man Lift	\$99,000
21	Temp fencing	\$15,000
21.1	Gate, permanent fencing, gate opener	\$150,000
22	Nutmeg/Oak St Road Improvements	\$667,675
23	Scale and Installation	\$151,150
24	Hand rail around loading ramp and guardrail	\$40,230
24.1	Install	\$5,000
25	PELLETIZATION APPARATUS	\$1,676,564
26	OH Roll up doors	\$100,874
27	Lagoon clean out including Mob/Demob	\$3,234,365
28	General Liability Insurance	\$403,326
29	Engineering/Architectural support throughout construction	\$500,000
	Sub Total	\$33,562,386
	1% Management Reserve	\$336,000
	Engineering and Design Cost	\$2,392,184
	Construction Management Fee 10%	\$3,356,239
	Sub Total from lines 80-83	\$39,646,809
	Current state/local rates (8.7%). Included tax for design fee dollars as well.	\$3,449,272
	Sub Total from lines 84+85	\$43,096,081
	Technology Licensing Fee (See Exhibit A)	\$161,701
	Bond	\$323,192
	Grand Total	\$43,580,974