Meeting Agenda

City Council

City Hall
601 4th Avenue E
Olympia, WA 98501

Information: 360.753.8244

Tuesday, February 25, 2020 **7:00 PM** **Council Chambers**

1. ROLL CALL

1.A ANNOUNCEMENTS

1.B APPROVAL OF AGENDA

2. SPECIAL RECOGNITION - None

3. PUBLIC COMMENT

(Estimated Time: 0-30 Minutes) (Sign-up Sheets are provided in the Foyer.)

During this portion of the meeting, citizens may address the City Council regarding items related to City business, including items on the Agenda. In order for the City Council to maintain impartiality and the appearance of fairness in upcoming matters and to comply with Public Disclosure Law for political campaigns, speakers will not be permitted to make public comments before the Council in these three areas: (1) on agenda items for which the City Council either held a Public Hearing in the last 45 days, or will hold a Public Hearing within 45 days, or (2) where the public testimony may implicate a matter on which the City Council will be required to act in a quasi-judicial capacity, or (3) where the speaker promotes or opposes a candidate for public office or a ballot measure.

Individual comments are limited to three (3) minutes or less. In order to hear as many people as possible during the 30-minutes set aside for Public Communication, the City Council will refrain from commenting on individual remarks until all public comment has been taken. The City Council will allow for additional public comment to be taken at the end of the meeting for those who signed up at the beginning of the meeting and did not get an opportunity to speak during the allotted 30-minutes.

COUNCIL RESPONSE TO PUBLIC COMMENT (Optional)

4. CONSENT CALENDAR

(Items of a Routine Nature)

4.A 20-0177 Approval of February 11, 2020 Study Session Meeting Minutes

Attachments: Minutes

4.B 20-0178 Approval of February 11, 2020 City Council Meeting Minutes

Attachments: Minutes

4.C 20-0192 Approval of Bills and Payroll Certification

Attachments: Bills and Payroll

4.D 20-0181 Approval of Bid Award for Woodruff Park Sport Court Reconstruction Project

Attachments: Summary of Bids

4.E 20-0180 Approval of Appointment of Nancy Clauson (Peterson) to the Capital Area Regional Public Facilities Board

Attachments: Nancy Clauson (Peterson) CARPFD Bio

CARPFD 2019 Boardmembers

4.F 20-0160 Approval of a Resolution Authorizing an Interlocal Agreement between the City of Olympia Fire Department and WA State Department of Natural Resources - Forestland Response Agreement

Attachments: Resolution

Agreement

4.G 20-0161 Approval of a Resolution Authorizing an Interlocal Agreement between City of Olympia Fire Department and WA State Department of Natural Resources for the Fire District Assistance Agreement for Federal Excess Personal Property (FEPP) Program

Attachments: Resolution

Agreement

4.H 20-0190 Approval of a Resolution Authorizing Amendment 1 to the Agreed Order with the Washington State Department of Ecology for Remediation of the Former West Olympia Landfill Site

Attachments: Resolution

Amendment 1

4. SECOND READINGS (Ordinances)

4.I 20-0129 Approval of an Ordinance Enacting a New Chapter of the Olympia Municipal Code Regulating the Retail Sale of Dogs and Cats

Attachments: Ordinance

4. FIRST READINGS (Ordinances)

4.J 20-0170 Approval of an Ordinance Amending Title 4 of the Olympia Municipal Code Relating to Residential Parking Fees

Attachments: Ordinance

Residential Parking Zone Map

Parking Permits 2007-2019

5. PUBLIC HEARING

5.A 20-0182 Public Hearing on a Development Agreement with Low-Income Housing

Institute for 2828 Martin Way

Attachments: Resolution

Agreement

6. OTHER BUSINESS

6.A 20-0059 Draft 2019 Wastewater Management Plan Briefing

Attachments: UAC Letter of Support

Summary Document

Link to 2019 Plan and Appendices

Revisions to Address Public and Stakeholder Comments

7. CONTINUED PUBLIC COMMENT

(If needed for those who signed up earlier and did not get an opportunity to speak during the allotted 30 minutes)

8. REPORTS AND REFERRALS

8.A COUNCIL INTERGOVERNMENTAL/COMMITTEE REPORTS AND REFERRALS

8.B CITY MANAGER'S REPORT AND REFERRALS

9. ADJOURNMENT

The City of Olympia is committed to the non-discriminatory treatment of all persons in employment and the delivery of services and resources. If you require accommodation for your attendance at the City Council meeting, please contact the Council's Executive Assistant at 360.753.8244 at least 48 hours in advance of the meeting. For hearing impaired, please contact us by dialing the Washington State Relay Service at 7-1-1 or 1.800.833.6384.

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of February 11, 2020 Study Session Meeting Minutes

Agenda Date: 2/25/2020
Agenda Item Number: 4.A
File Number:20-0177

Type: minutes **Version:** 1 **Status:** Consent Calendar

Title
Approval of February 11, 2020 Study Session Meeting Minutes

Meeting Minutes - Draft

City Council

City Hall
601 4th Avenue E
Olympia, WA 98501

Information: 360.753.8244

Tuesday, February 11, 2020 **5:30 PM** **Council Chambers**

Study Session

1. ROLL CALL

Present: 6 - Mayor Cheryl Selby, Mayor Pro Tem Jessica Bateman, Councilmember Clark Gilman, Councilmember Dani Madrone, Councilmember Lisa Parshley and Councilmember Renata Rollins

Excused: 1 - Councilmember Jim Cooper

2. BUSINESS ITEM

2.A 20-0125 Homeless Response Plan Community Workgroup Discussion

Senior Planner Stacey Ray introduced the Community Work Group: Kim Adney, Grace Burkhart, Elspeth (Eli) Charno, Scott Clifthorne, Robert Coit (not present), Jennifer Davis, Amy Evans, Derek Harris, Meg Martin, Selena Rodocker and Ally Upton.

Ms. Ray gave an overview of the Homeless Response Plan (HRP) process including the participatory leadership approach, the role of the Community Work Group and community engagement and participation.

Strategic Projects Manager Amy Buckler gave a high level overview of the plan including areas of agreement, behaviors that make people unsafe and encampments.

Ms. Ray facilitated a panel discussion with the members of the Work Group in order to share their experiences during the HRP process.

Councilmembers asked clarifying questions.

The study session was completed.

3. ADJOURNMENT

The meeting adjourned at 6:45 p.m.

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of February 11, 2020 City Council Meeting Minutes

Agenda Date: 2/25/2020
Agenda Item Number: 4.B
File Number:20-0178

Type: minutes **Version:** 1 **Status:** Consent Calendar

Title
Approval of February 11, 2020 City Council Meeting Minutes

Meeting Minutes - Draft

City Council

City Hall
601 4th Avenue E
Olympia, WA 98501

Information: 360.753.8244

Tuesday, February 11, 2020 **7:00 PM** **Council Chambers**

1. ROLL CALL

Present: 6 - Mayor Cheryl Selby, Mayor Pro Tem Jessica Bateman, Councilmember Clark Gilman, Councilmember Dani Madrone, Councilmember Lisa Parshley and Councilmember Renata Rollins

Excused: 1 - Councilmember Jim Cooper

1.A ANNOUNCEMENTS

Mayor Selby announced the Council met earlier in the evening for a Study Session. No decisions were made.

Senior Planner Joyce Phillips gave an update on work being done regarding housing code amendments and public outreach.

1.B APPROVAL OF AGENDA

The agenda was approved.

2. SPECIAL RECOGNITION - None

3. PUBLIC COMMENT

The following people spoke: Janae Huber, Candy Mercer, Donna Snow, Stacy Baldwin, Michelle Andrews, Trey Herr, Andreas Wolfe, and Ashley Dale.

4. CONSENT CALENDAR

4.A 20-0147 Approval of February 4, 2020 Study Session Meeting Minutes

The minutes were adopted.

4.B 20-0148 Approval of February 4, 2020 City Council Meeting Minutes

The minutes were adopted.

4.C 20-0146 Approval of a Resolution Approving a Solar Project Agreement Extension with the Farmers Market Community Solar Project, LLC

The resolution was adopted.

4. SECOND READINGS (Ordinances) - None

4. FIRST READINGS (Ordinances)

4.D 20-0129 Approval of an Ordinance Enacting a New Chapter of the Olympia Municipal Code Regulating the Retail Sale of Dogs and Cats

Councilmember Parshley spoke to Item 4.D.

The ordinance was approved on first reading and moved to second reading.

Approval of the Consent Agenda

Mayor Pro Tem Bateman moved, seconded by Councilmember Parshley, to adopt the Consent Calendar. The motion carried by the following vote:

Aye: 6 - Mayor Selby, Mayor Pro Tem Bateman, Councilmember Gilman, Councilmember Madrone, Councilmember Parshley and Councilmember Rollins

Excused: 1 - Councilmember Cooper

5. PUBLIC HEARING - None

6. OTHER BUSINESS

6.A 20-0058 Approval of a Resolution Authorizing an Interlocal Agreement with the Port of Olympia and LOTT Related to Sea Level Rise

Water Resources Director Eric Christensen gave an update on sea level response planning and the interlocal agreement.

Councilmembers asked clarifying questions.

Mayor Pro Tem Bateman moved, seconded by Councilmember Parshley, to approve the resolution authorizing an Interlocal Agreement between the City of Olympia, Port of Olympia and LOTT Clean Water Alliance to establish an interjurisdictional framework to address sea level rise, and authorizing the Interim City Manager to sign the agreement. The motion carried by the following vote:

Aye: 6 - Mayor Selby, Mayor Pro Tem Bateman, Councilmember Gilman, Councilmember Madrone, Councilmember Parshley and Councilmember Rollins

Excused: 1 - Councilmember Cooper

7. CONTINUED PUBLIC COMMENT - None

8. REPORTS AND REFERRALS

8.A COUNCIL INTERGOVERNMENTAL/COMMITTEE REPORTS AND REFERRALS

Councilmembers reported on meetings and events attended.

8.B CITY MANAGER'S REPORT AND REFERRALS - None

9. ADJOURNMENT

The meeting adjourned at 7:48 p.m.

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of Bills and Payroll Certification

Agenda Date: 2/25/2020
Agenda Item Number: 4.C
File Number:20-0192

Type: decision **Version:** 1 **Status:** Consent Calendar

Title
Approval of Bills and Payroll Certification

CITY OF OLYMPIA

EXPENDITURE SUMMARY

"I THE UNDERSIGNED, DO HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE MATERIALS HAVE BEEN FURNISHED, THE SERVICES RENDERED OR THE LABOR PERFORMED AS DESCRIBED HEREIN, 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 CLAIMS ARE JUST, DUE AND UNPAID OBLIGATIONS AGAINST THE CITY OF OLYMPIA, AND THAT I AM AUTHORIZED TO AUTHENTICATE AND CERTIFY TO SAID CLAIMS", AND,

"I, THE UNDERSIGNED, DO HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT CLAIMS FOR EMPLOYEE AND OFFICER EXPENSES ARE JUST, DUE AND UNPAID OBLIGATIONS AGAINST THE CITY OF OLYMPIA, AND THAT I AM AUTHORIZED TO CERTIFY SAID CLAIMS"

FOR PERIOD	1/12/2020		1/18/2020
FOR A/P ACH PAYMENTS and A/P CHECKS NUMBERED	3722592	THROUGH	3722905
FOR OTHER ELECTRONIC PAYMENTS DATED		THROUGH	

INCLUSIVE IN THE AMOUNT TOTALING

DATED 1-28-2020

ADMINISTRATIVE SERVICES DIRECTOR

TOTAL APPROVED FOR PAYMENT	FUND	
$3,547,579 68	001	GENERAL FUND
$0.00	002	SHOP FACILITIES
$322,798.77	003	REVOLVING ACCOUNT FUND
$0 00	004	URBAN ARTERIAL FUND
$2,970 36	005	Development Fee Revenue
$10,753 38	007	Parking Fund
$30,807 15	014	LEOFF 1 OPEB Trust Fund
$0 00	21	Washington Center Endow
$1,336 87	025	WASHINGTON CENTER
$4,300 58	026	MUNICIPAL ARTS FUND
$0 00	029	EQUIP & FACIL REPLACE RES
$190.90	107	HUD
$0 00	108	HUD
$0 00	127	IMPACT FEES
$0 00	130	SEPA MITIGATION FUND
$0 00	132	LODGING TAX FUND
$0.00	133	ARTS AND CONFERENCE FUND
$0 00	134	PARKS AND REC SIDEWALK UT TAX
$5,018 55	135	PARKING BUSINESS IMP AREA
$0.00	136	FARMERS MRKT REPAIR/REPLC
$0 00	137	CHILDREN'S HANDS ON MUSEUM
$40 00	138	TRANS BENEFIT DISTRICT
$5,108.00	141	Oly Metro Park District
$8,439.21	142	HOME FUND
$0 00	208	LID OBLIGATION CONTROL
$0.00	216	4th/5th AVE PW TRST
$0 00	223	LTGO BOND FUND '06-PARKS
$0 00	224	UTGO BOND FUND 2009 FIRE
$0 00	225	CITY HALL DEBT FUND
$0 00	226	2010 LTGO BOND-STREETPROJ
$0 00	227	LOCAL DEBT FUND
$0.00	228	2010B LTGO BONDS-HOCM
$0.00	230	LTGO Band Fund 2016
$76,183 46	317	CIP
$0.00	322	4/5th AVE CORRIDOR/BRIDGE
$0.00	323	CIP CONSTR FUND - PARKS
$0 00	324	FIRE STATION 4 CONSTRUCT
$0.00	325	CITY HALL CONST
$0 00	326	TRANSPORTATION CONST
$0 00	329	GO BOND PROJECT FUND
$0.00	331	FIRE EQUIPMENT REPLACEMENT FUND
$92,830.24	401	WATER
$8,340 64	402	SEWER
$62,900 53	403	SOLID WASTE
$6,588 62	404	STORM AND SURFACE WATER
$0 00	418	Stormwater Debt Service Fund
$4,911 17	434	STORM AND SURFACE WATER CIP
$16,350 32	461	WATER CIP FUND
$1,885 69	462	SEWER CIP FUND
$0 00	463	SOLID WASTE/ADVERTISING
$11,028 67	501	EQUIPMENT RENTAL
$0 00	502	C R EQUIPMENT RENTAL
$0 00	503	UNEMPLOYMENT COMPENSATION
$0 00	504	INS TRUST FUND
$19 51	505	WORKERS COMPENSATION
$1,055.15	604	FIREMEN'S PENSION FUND
$0.00	605	CUSTOMERS WATER RESERVE
$0.00	621	WASHINGTON CENTER ENDOW
$0.00	631	PUBLIC FACILITIES
$971 24	682	LAW ENFORCEMENT RECORD MGNTSYS
$0 00	701	PARKS-NEIGHBORHOOD
$0 00	702	PARKS-COMMUNITY
$0 00	703	PARKS-OPEN SPACE
$0 00	707	PARKS-SPECIAL USE
$0 00	711	TRANSPORTATION
$4,972 00	720	SCHOOLS
$4,227,380.08	GRAND TOTAL FOR WEEK	

Reconciliation of Superion All Checks Register to Expenditure Summary

Data From Superion All Checks Register

Description	From Check	to Check	Check Amount
Payroll A/P (vendors) Checks	20001		36.00
Payroll A/P (vendors) Checks	20004		5,870.43
Payroll A/P (vendors) Checks	20005		469,690 61
Payroll A/P (vendors) Checks	20006		4,511 26
Payroll A/P (vendors) Checks	20007		288,040 37
Payroll A/P (vendors) Checks	20008		124,412 80
Payroll A/P (vendors) Checks	20010		18 00
Payroll A/P (vendors) Checks	20011		54.00
Payroll A/P (vendors) Checks	20012		660,178 68
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
		Subtotal	*1,552,812 35*
VOID CHECKS			*(4 929 12)*
EFT			370 676 81
A/P Checks			2,306,820 04
Grand Total			4,227,380 08
Proof			*0 00*

CITY OF OLYMPIA

EXPENDITURE SUMMARY

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FOR PERIOD	1/19/2020		1/25/2020
FOR A/P ACH PAYMENTS and A/P CHECKS NUMBERED	3722906	THROUGH	
FOR OTHER ELECTRONIC PAYMENTS DATED		THROUGH	

INCLUSIVE IN THE AMOUNT TOTALING

DATED 1/28/2020

ADMINISTRATIVE SERVICES DIRECTOR Debbie L. Sullivan

TOTAL APPROVED FOR PAYMENT	FUND	
$209,268.82	001	GENERAL FUND
$698.40	002	SHOP FACILITIES
$11,468.66	003	REVOLVING ACCOUNT FUND
$0.00	004	URBAN ARTERIAL FUND
$18,752.55	006	Development Fee Revenue
$2,449.85	007	Parking Fund
$11,425.41	014	LEOFF 1 OPEB Trust Fund
$46,932.05	21	Washington Center Endow
$524.64	025	WASHINGTON CENTER
$0.00	026	MUNICIPAL ARTS FUND
$531.53	029	EQUIP & FACIL REPLACE RES
$619.48	107	HUD
$0.00	108	HUD
$0.00	127	IMPACT FEES
$0.00	130	SEPA MITIGATION FUND
$0.00	132	LODGING TAX FUND
$0.00	133	ARTS AND CONFERENCE FUND
$0.00	134	PARKS AND REC SIDEWALK UT TAX
$485.84	135	PARKING BUSINESS IMP AREA
$0.00	136	FARMERS MRKT REPAIR/REPLC
$0.00	137	CHILDREN'S HANDS ON MUSEUM
$0.00	138	TRANS BENEFIT DISTRICT
$0.00	141	Oly Metro Park District
$1,193.31	142	HOME FUND
$0.00	208	LID OBLIGATION CONTROL
$0.00	216	4th/5th AVE PW TRST
$0.00	223	LTGO BOND FUND '06-PARKS
$0.00	224	UTGO BOND FUND 2009 FIRE
$0.00	225	CITY HALL DEBT FUND
$0.00	226	2010 LTGO BOND-STREETPROJ
$0.00	227	LOCAL DEBT FUND
$0.00	228	2010B LTGO BONDS-HOCM
$0.00	230	LTGO Band Fund 2016
$292.68	317	CIP
$0.00	322	4/5th AVE CORRIDOR/BRIDGE
$0.00	323	CIP CONSTR FUND - PARKS
$0.00	324	FIRE STATION 4 CONSTRUCT
$0.00	325	CITY HALL CONST
$0.00	326	TRANSPORTATION CONST
$0.00	329	GO BOND PROJECT FUND
$0.00	331	FIRE EQUIPMENT REPLACEMENT FUND
$58,157.86	401	WATER
$1,164,554.95	402	SEWER
$333,758.61	403	SOLID WASTE
$4,947.67	404	STORM AND SURFACE WATER
$0.00	418	Stormwater Debt Service Fund
$0.00	434	STORM AND SURFACE WATER CIP
$637.31	461	WATER CIP FUND
$11,304.72	462	SEWER CIP FUND
$0.00	463	SOLID WASTE/ADVERTISING
$14,966.70	501	EQUIPMENT RENTAL
$0.00	502	C. R. EQUIPMENT RENTAL
$0.00	503	UNEMPLOYMENT COMPENSATION
$0.00	504	INS TRUST FUND
$15,114.00	505	WORKERS COMPENSATION
$0.00	604	FIREMEN'S PENSION FUND
$0.00	605	CUSTOMERS WATER RESERVE
$0.00	621	WASHINGTON CENTER ENDOW
$0.00	631	PUBLIC FACILITIES
$302,395.62	682	LAW ENFORCEMENT RECORD MGNTSYS
$0.00	701	PARKS-NEIGHBORHOOD
$0.00	702	PARKS-COMMUNITY
$0.00	703	PARKS-OPEN SPACE
$0.00	707	PARKS-SPECIAL USE
$0.00	711	TRANSPORTATION
$0.00	720	SCHOOLS
$2,210,480.66	GRAND TOTAL FOR WEEK	

Reconciliation of Superion All Checks Register to Expenditure Summary

Data From Superion All Checks Register

Description	From Check	to Check	Check Amount
Payroll A/P (vendors) Checks	*EFT VOIDS*		(132.50)
Payroll A/P (vendors) Checks	*EFT VOIDS*		(132.50)
Payroll A/P (vendors) Checks	*EFT VOIDS*		(265.00)
Payroll A/P (vendors) Checks	3723182	3723182	142.05
Payroll A/P (vendors) Checks	3723184	3723184	6,356.89
Payroll A/P (vendors) Checks	3723185	3723185	1,080.29
Payroll A/P (vendors) Checks	3723187	3723187	2,000.50
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
		Subtotal	*9,049.73*
VOID CHECKS			*(9,821.65)*
EFT			585,598.71
A/P Checks			1,625,653.87
Grand Total			2,210,480.66
Proof			*0.00*

CITY OF OLYMPIA

EXPENDITURE SUMMARY

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FOR PERIOD	1/26/2020		2/1/2020
FOR A/P ACH PAYMENTS and A/P CHECKS NUMBERED	3722906	THROUGH	3723358
FOR OTHER ELECTRONIC PAYMENTS DATED	20021	THROUGH	20029

INCLUSIVE IN THE AMOUNT TOTALING

DATED 2/4/2020

ADMINISTRATIVE SERVICES DIRECTOR

TOTAL APPROVED FOR PAYMENT	FUND	
$228,077 85	001	GENERAL FUND
$0 00	002	SHOP FACILITIES
$8,858.06	003	REVOLVING ACCOUNT FUND
$0 00	004	URBAN ARTERIAL FUND
$702 50	006	Development Fee Revenue
$3,516.81	007	Parking Fund
$2,303 15	014	LEOFF 1 OPEB Trust Fund
$0.00	21	Washington Center Endow
$120 07	025	WASHINGTON CENTER
$71 05	026	MUNICIPAL ARTS FUND
$14,807.84	029	EQUIP & FACIL REPLACE RES
$80 09	107	HUD
$0.00	108	HUD
$0.00	127	IMPACT FEES
$0 00	130	SEPA MITIGATION FUND
$0 00	132	LODGING TAX FUND
$0 00	133	ARTS AND CONFERENCE FUND
$0.00	134	PARKS AND REC SIDEWALK UT TAX
$0 00	135	PARKING BUSINESS IMP AREA
$0 00	136	FARMERS MRKT REPAIR/REPLC
$0 00	137	CHILDREN'S HANDS ON MUSEUM
$0 00	138	TRANS BENEFIT DISTRICT
$0 00	141	Oly Metro Park District
$5,069.12	142	HOME FUND
$0 00	209	LID OBLIGATION CONTROL
$0 00	216	4th/5th AVE PW TRST
$0 00	223	LTGO BOND FUND '06-PARKS
$0 00	224	UTGO BOND FUND 2009 FIRE
$0 00	225	CITY HALL DEBT FUND
$0.00	226	2010 LTGO BOND-STREETPROJ
$0 00	227	LOCAL DEBT FUND
$0 00	228	2010B LTGO BONDS-HOCM
$0 00	230	LTGO Band Fund 2016
$19,303 28	317	CIP
$0.00	322	4/5th AVE CORRIDOR/BRIDGE
$0 00	323	CIP CONSTR FUND - PARKS
$0 00	324	FIRE STATION 4 CONSTRUCT
$0.00	325	CITY HALL CONST
$0 00	326	TRANSPORTATION CONST
$0 00	329	GO BOND PROJECT FUND
$0 00	331	FIRE EQUIPMENT REPLACEMENT FUND
$57,553 46	401	WATER
$17,019 33	402	SEWER
$51,419 42	403	SOLID WASTE
$13,865.64	404	STORM AND SURFACE WATER
$0 00	418	Stormwater Debt Service Fund
$16,466 00	434	STORM AND SURFACE WATER CIP
$12,289 22	461	WATER CIP FUND
$892.54	462	SEWER CIP FUND
$0 00	463	SOLID WASTE/ADVERTISING
$30,832.43	501	EQUIPMENT RENTAL
$0.00	502	C R EQUIPMENT RENTAL
$17,055 91	503	UNEMPLOYMENT COMPENSATION
$0 00	504	INS TRUST FUND
$0.00	505	WORKERS COMPENSATION
$0.00	604	FIREMEN'S PENSION FUND
$0 00	605	CUSTOMERS WATER RESERVE
$0 00	621	WASHINGTON CENTER ENDOW
$0.00	631	PUBLIC FACILITIES
$0 00	682	LAW ENFORCEMENT RECORD MGNTSYS
$0 00	701	PARKS-NEIGHBORHOOD
$0 00	702	PARKS-COMMUNITY
$0 00	703	PARKS-OPEN SPACE
$0 00	707	PARKS-SPECIAL USE
$0 00	711	TRANSPORTATION
$0 00	720	SCHOOLS
$500,313 77		GRAND TOTAL FOR WEEK

Reconciliation of Superion All Checks Register to Expenditure Summary

Data From Superion All Checks Register

Description	From Check	to Check	Check Amount
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
Payroll A/P (vendors) Checks			
		Subtotal	*0 00*
VOID CHECKS			*(1,188 77)*
EFT			169,068.95
A/P Checks			332,433 59
Grand Total			500,313 77
Proof			*0.00*

	AP/EDT 1/27/2020	AP 1/28/2020	AP 1/30/2020						TOTAL
001	$24,078 51	$171,390 44	32,608.90						228,077 85
002									0 00
003		698 40	8,169 66						8,868 06
004									0.00
006		702 50							702 50
007	3,516 81								3,516 81
014		$ 2,303 15							2,303 15
021									0 00
025		$120.07							120 07
026			71 05						71 05
029		14,807.84							14,807 84
107			80.09						80 09
108									0 00
127									0 00
130									0 00
132									0 00
133									0.00
134									0.00
135									0 00
136									0 00
137									0 00
138									0.00
141									0.00
142			5,069.12						5,069 12
208									0 00
216									0 00
223									0 00
224									0 00
225									0 00
226									0 00
227									0.00
228									0 00
230									0 00
317	619 58	18,683.70							19,303.28
322									0.00
323									0.00
324									0 00
325									0.00
326									0.00
329									0 00
331									0 00
401	44,275.16	466 42	12,811 88						57,553.46
402	15,659 26	1,360.07							17,019.33
403	45,300.37		6,119.05						51,419 42
404	5,860 71	3,213 60	4,791 33						13,865 64
418									0 00
434		16,466 00							16,466 00
461		12,289 22							12,289 22
462		892 54							892 54
463									0 00
501	709 21	29,423 87	699.35						30,832 43
502									0 00
503	17,055.91								17,055.91
504									0.00
505									0 00
604									0.00
605									0 00
621									0 00
631									0 00
682									0.00
701									0 00
702									0.00
703									0.00
707									0 00
711									0.00
720									0.00
TOTALS	$157,075.52	$272,817 82	$70,420 43	$0 00	$0 00	$0.00	$0.00	0 00	$500,313 77

OUTSTANDING CHECKS REGISTER
SELECTED BY CHECK DATE
FROM: 01/26/2020 TO: 02/01/2020

CHECK NO	VENDOR NO	VENDOR NAME	CHECK DATE	CHECK AMOUNT	BANK CODE
20021	9247	WA ST EMPLOYMENT SECURITY DEPT	01/27/2020	17,055.91	01
20022	14787	THE BANK OF NEW YORK MELLON	01/27/2020	401.75	01
20023	24751	U S BANK	01/27/2020	1,911.47	01
20024	20996	WA ST DEPT OF REVENUE	01/27/2020	5,860.71	01
20025	20996	WA ST DEPT OF REVENUE	01/27/2020	45,294.54	01
20026	20996	WA ST DEPT OF REVENUE	01/27/2020	43,158.45	01
20027	20996	WA ST DEPT OF REVENUE	01/27/2020	15,659.26	01
20028	20996	WA ST DEPT OF REVENUE	01/27/2020	5,834.08	01
20029	20996	WA ST DEPT OF REVENUE	01/27/2020	21,899.35	01
3723256	20507	A+ PLUMBING & PUMPS	01/28/2020	1,708.67	01
3723257	29266	A D I	01/28/2020	489.88	01
3723258	30086	ADVANCE AUTO PARTS	01/28/2020	150.00	01
3723259	20236	ALTERNATIVES PROF COUNSELING I	01/28/2020	494.80	01
3723260	831	BAYVIEW BUILDING MATERIAL	01/28/2020	174.93	01
3723261	30845	BERGER PARTNERSHIP	01/28/2020	16,446.93	01
3723262	1282	CAPITAL INDUSTRIAL INC	01/28/2020	196.72	01
3723263	8833	CENTURYLINK	01/28/2020	56.99	01
3723264	1220	CH20 INCORPORATED	01/28/2020	520.21	01
3723265	5114	CITY OF LACEY	01/28/2020	1,461.55	01
3723266	19253	CITY OF OLYMPIA LANDFILL CRGS	01/28/2020	106.73	01
3723267	25519	COMCAST	01/28/2020	198.42	01
3723268	25519	COMCAST	01/28/2020	120.07	01
3723269	19890	PAUL CONWAY SHEILDS	01/28/2020	636.76	01
3723270	16947	STEVEN COOPER	01/28/2020	142.51	01
3723271	20407	COPIERS NORTHWEST INC	01/28/2020	378.73	01
3723272	11112	COURTESY AUTO SERVICE/TIRE INC	01/28/2020	838.55	01
3723273	1715	DAILY JOURNAL OF COMMERCE	01/28/2020	237.60	01
3723274	217	DEPT OF ENTERPRISE SERVICES	01/28/2020	440.00	01
3723275	27378	DRAGON ANALYTICAL LABORATORY I	01/28/2020	60.00	01
3723276	217	FOURTH AVENUE GROUP	01/28/2020	44.00	01
3723277	30691	GCR TIRES & SERVICE	01/28/2020	929.69	01
3723278	20009	GRAY & OSBORNE INC	01/28/2020	11,209.22	01
3723279	3458	HARDEL BUILDER'S CENTER INC	01/28/2020	26.82	01
3723280	30526	HARRINGTON INVESTIGATIONS	01/28/2020	603.96	01
3723282	30518	HP INC	01/28/2020	1,450.86	01
3723283	28238	HP INC	01/28/2020	1,136.72	01
3723284	29457	ITRON INC	01/28/2020	195.10	01
3723285	4423	J&I POWER EQUIP INC	01/28/2020	1,892.20	01
3723286	18002	JONES, LOU ELLYN	01/28/2020	124.00	01
3723287	19040	LEW RENTS WEST INC	01/28/2020	306.04	01
3723288	25467	LOWE'S BUSINESS ACCT/GECRB	01/28/2020	1,119.86	01
3723289	17396	MARK MATTHIESEN	01/28/2020	32.79	01
3723290	29773	MAX WALKER	01/28/2020	56.00	01
3723291	19653	MONICA SCHNEIDER	01/28/2020	1,188.77	01
3723292	28821	MPH HOLDINGS LLC	01/28/2020	3,419.20	01
3723293	11617	OLYMPIA LIGHTING CENTER INC	01/28/2020	271.88	01
3723294	6550	OLYMPIA SUPPLY CO INC	01/28/2020	340.57	01
3723295	6917	PATRICK B PASSMORE	01/28/2020	1,099.74	01
3723296	7115	PLATT ELECTRIC SUPPLY	01/28/2020	1,010.86	01
3723297	7218	PUGET SOUND ENERGY	01/28/2020	86.68	01
3723298	7218	PUGET SOUND ENERGY	01/28/2020	225.55	01

CHECK NO	VENDOR NO	VENDOR NAME	CHECK DATE	CHECK AMOUNT	BANK CODE
3723299	7218	PUGET SOUND ENERGY	01/28/2020	15,119.62	01
3723300	7218	PUGET SOUND ENERGY	01/28/2020	97.45	01
3723301	7218	PUGET SOUND ENERGY	01/28/2020	1,501.86	01
3723302	7218	PUGET SOUND ENERGY	01/28/2020	167.93	01
3723303	7218	PUGET SOUND ENERGY	01/28/2020	71.36	01
3723304	7218	PUGET SOUND ENERGY	01/28/2020	12.80	01
3723305	7218	PUGET SOUND ENERGY	01/28/2020	22.42	01
3723306	7218	PUGET SOUND ENERGY	01/28/2020	17.34	01
3723307	7218	PUGET SOUND ENERGY	01/28/2020	157.40	01
3723308	7218	PUGET SOUND ENERGY	01/28/2020	29,502.40	01
3723309	14825	QUILL CORPORATION	01/28/2020	53.10	01
3723310	7491	ROBINSON NOBLE	01/28/2020	1,999.17	01
3723311	7800	SEA WESTERN INC	01/28/2020	393.32	01
3723312	7816	JACK SEWARD	01/28/2020	163.90	01
3723313	7863	SHERWIN WILLIAMS COMPANY	01/28/2020	40.75	01
3723314	8778	SMART FOODSERVICE #548	01/28/2020	107.97	01
3723315	217	SRS VENTURES LLC	01/28/2020	132.00	01
3723316	23819	STANLEY SECURITY SOLUTIONS INC	01/28/2020	321.29	01
3723317	10809	TACOMA SCREW PRODUCTS INC	01/28/2020	134.04	01
3723318	29738	THOMAS ARCHITECTURE STUDIO	01/28/2020	698.31	01
3723319	11394	TRAFFIC SAFETY SUPPLY CO INC	01/28/2020	2,699.71	01
3723320	19687	U S POSTAL SERVICE	01/28/2020	20,000.00	01
3723321	25081	VENABLES PEST MANAGEMENT	01/28/2020	296.21	01
3723322	9268	W A S P C	01/28/2020	2,586.61	01
3723323	23212	W S A F M	01/28/2020	300.00	01
3723325	18135	WA ST OFFICE OF THE TREASURER	01/28/2020	19,704.76	01
3723326	217	WELCHS BARGAIN CENTER	01/28/2020	132.00	01
3723327	24677	AMERICAN PLANNING ASSN	01/30/2020	618.00	01
3723328	7723	ANNA SCHLECHT	01/30/2020	80.09	01
3723329	17061	APEX MAILING SERVICE	01/30/2020	1,850.49	01
3723330	8833	CENTURYLINK	01/30/2020	119.70	01
3723331	30452	CINTAS CORPORATION #461	01/30/2020	190.65	01
3723332	5114	CITY OF LACEY	01/30/2020	110.00	01
3723333	30797	CIVICPLUS, LLC	01/30/2020	6,275.02	01
3723334	25519	COMCAST	01/30/2020	170.12	01
3723335	29732	COMCAST BUSINESS	01/30/2020	1,404.49	01
3723336	29089	CONSOLIDATED SUPPLY	01/30/2020	520.92	01
3723337	20407	COPIERS NORTHWEST INC	01/30/2020	276.82	01
3723338	20698	FRANCINE CULLARI	01/30/2020	100.00	01
3723339	20698	GENEVA FRYMIRE	01/30/2020	100.00	01
3723340	3458	HARDEL BUILDER'S CENTER INC	01/30/2020	198.39	01
3723341	28890	HB JAEGER CO LLC	01/30/2020	107.11	01
3723342	28305	INSLEE, BEST, DOEZIE,& RYDER,	01/30/2020	3,584.20	01
3723343	217	JERAD BENDER	01/30/2020	1,505.01	01
3723344	30954	KASANDRA BOUVIA	01/30/2020	173.47	01
3723345	28879	LARRY WAYNE AUDIO	01/30/2020	75.00	01
3723346	29773	MAX WALKER	01/30/2020	30.00	01
3723347	30911	MSPS	01/30/2020	5,300.36	01
3723348	27491	OFFICE DEPOT	01/30/2020	183.18	01
3723349	6519	OLYMPIA COPY & PRINTING INC	01/30/2020	1,093.85	01
3723350	6550	OLYMPIA SUPPLY CO INC	01/30/2020	137.65	01

CHECK NO	VENDOR NO	VENDOR NAME	CHECK DATE	CHECK AMOUNT	BANK CODE
3723351	7115	PLATT ELECTRIC SUPPLY	01/30/2020	159.63	01
3723352	30853	POINT GRAPHICS LLC	01/30/2020	521.67	01
3723353	7218	PUGET SOUND ENERGY	01/30/2020	112.93	01
3723354	30275	SHI INTERNATIONAL CORP	01/30/2020	700.29	01
3723355	29947	S&S DJ SHOW	01/30/2020	250.00	01
3723356	19767	VERIZON WIRELESS	01/30/2020	40.01	01
3723357	27103	WA ST DEPT OF ENTERPRISE SVC	01/30/2020	1,088.44	01
3723358	22332	WHISTLE WORKWEAR - OLYMPIA	01/30/2020	216.39	01

BANK: 01 US Bank - Accounts Payable

NO. OF CHECKS: 110 CHECKS OUTSTANDING 332,433.59 ***

CHECK NO	VENDOR NO	VENDOR NAME	CHECK DATE	CHECK AMOUNT	BANK CODE

TOTAL FOR ALL BANKS

NO. OF CHECKS: 110 TOTAL CHECKS OUTSTANDING 332,433.59 ***

PREPARED 02/04/2020,13:44:18
PROGRAM: GM176L
CITY OF OLYMPIA
BANK: 01 US Bank - Accounts Payable

ELECTRONIC FUNDS TRANSFER REGISTER

FROM: 01/26/2020 TO: 02/01/2020

ACCOUNTING PERIOD 01/2020

PAYMENT NO	VENDOR NO	VENDOR NAME	TRANSFER DATE	AMOUNT	TRACE NUMBER	EFT BATCH	BANK CODE
12281	29277	AIRGAS USA LLC	01/28/2020	21.83	125000100000001	0000001	01
12282	331	ALWAYS SAFE & LOCK INC	01/28/2020	39.35	125000100000002	0000001	01
12308	331	ALWAYS SAFE & LOCK INC	01/30/2020	48.64	125000100000001	0000001	01
12309	30587	AMAZON BUSINESS	01/30/2020	156.79	125000100000002	0000001	01
12283	551	ASSOCIATED PETROLEUM PRODUCTS INC	01/28/2020	25,532.59	125000100000003	0000001	01
12284	29093	ATS AUTOMATION INC	01/28/2020	12,326.85	125000100000004	0000001	01
12285	22801	BATTERIES PLUS - OLYMPIA	01/28/2020	87.22	125000100000005	0000001	01
12310	30872	CAPITOL CONSULTING LLC	01/30/2020	3,000.00	125000100000003	0000001	01
12311	21888	CDW GOVERNMENT INC	01/30/2020	1,809.58	125000100000004	0000001	01
12312	25090	CONCRETE RECYCLERS/ JS&S (PW)	01/30/2020	150.84	125000100000005	0000001	01
12287	1585	CRAINS OFFICE SUPPLY	01/28/2020	602.98	125000100000007	0000001	01
12313	1585	CRAINS OFFICE SUPPLY	01/30/2020	1,906.73	125000100000006	0000001	01
12288	1604	CRAWFORD, DALE	01/28/2020	712.00	125000100000008	0000001	01
12289	22815	E S R I INC	01/28/2020	54,650.00	125000100000009	0000001	01
12290	17159	FASTENAL COMPANY	01/28/2020	134.94	125000100000010	0000001	01
12314	17159	FASTENAL COMPANY	01/30/2020	494.55	125000100000007	0000001	01
12315	27845	FCS GROUP INC	01/30/2020	1,072.50	125000100000008	0000001	01
12316	2910	HD FOWLER COMPANY	01/30/2020	944.58	125000100000009	0000001	01
12317	25870	HONEY BUCKET	01/30/2020	257.98	125000100000010	0000001	01
12318	18805	INDUSTRIAL HYDRAULICS INC	01/30/2020	708.41	125000100000011	0000001	01
12319	30506	INFOSEND INC	01/30/2020	5,166.62	125000100000012	0000001	01
12291	4272	INTERCITY TRANSIT CORP	01/28/2020	378.41	125000100000011	0000001	01
12320	28055	ISLAND JOHNNY	01/30/2020	5,069.12	125000100000013	0000001	01
12292	4693	JOHNSON, PAUL E	01/28/2020	185.00	125000100000012	0000001	01
12293	4995	KNIGHT FIRE PROTECTION	01/28/2020	1,782.68	125000100000013	0000001	01
12294	5222	LEW RENTS INC	01/28/2020	2,447.45	125000100000014	0000001	01
12322	5222	LEW RENTS INC	01/30/2020	43.92	125000100000015	0000001	01
12323	4300	LG ISAACSON CO INC	01/30/2020	467.80	125000100000016	0000001	01
12295	1656	LN CURTIS & SONS	01/28/2020	354.22	125000100000015	0000001	01
12296	28453	MATERIALS TESTING & CONSULTING INC	01/28/2020	1,080.00	125000100000016	0000001	01
12297	10061	MOUNTAIN MIST	01/28/2020	17.16	125000100000017	0000001	01
12298	23443	MULLINAX FORD OF OLYMPIA LLC	01/28/2020	107.96	125000100000018	0000001	01
12324	29377	NANCY CAMPBELL	01/30/2020	17,595.81	125000100000017	0000001	01
12299	26316	NAPA AUTO PARTS-OLYMPIA	01/28/2020	1,403.24	125000100000019	0000001	01
12300	6909	PARAMETRIX INC	01/28/2020	892.54	125000100000020	0000001	01
12325	29390	PUGET SOUND ENTERTAINMENT	01/30/2020	355.99	125000100000018	0000001	01
12326	22451	RIGHT SYSTEMS INC	01/30/2020	2,226.11	125000100000019	0000001	01
12301	25329	SEATTLE AUTOMOTIVE DISTRIB INC	01/28/2020	4.58	125000100000021	0000001	01
12327	25329	SEATTLE AUTOMOTIVE DISTRIB INC	01/30/2020	53.82	125000100000020	0000001	01
12302	25534	SOLID WASTE SYSTEMS, INC	01/28/2020	18.21	125000100000022	0000001	01
12328	19997	SOUND URBAN FORESTRY	01/30/2020	500.00	125000100000021	0000001	01
12329	8453	THURSTON CTY TREASURER-CRIME VICTIM	01/30/2020	1,034.82	125000100000022	0000001	01
12303	28813	UNIFIRST CORP	01/28/2020	551.14	125000100000023	0000001	01
12330	28813	UNIFIRST CORP	01/30/2020	62.03	125000100000023	0000001	01
12304	27219	VANTAGE PHYSICIANS	01/28/2020	5,180.00	125000100000024	0000001	01
12305	27046	WA ST DEPT OF ECOLOGY	01/28/2020	16,466.00	125000100000025	0000001	01
12306	28719	WAXIE SANITARY SUPPLY	01/28/2020	908.58	125000100000026	0000001	01
12307	9853	ZEIGLER'S WELDING & HITCH SHOP INC.	01/28/2020	57.38	125000100000027	0000001	01

BANK: 01 US Bank - Accounts Payable 169,068.95 NO. OF CHECKS: 48

TOTAL FOR ALL BANKS: 169,068.95 NO. OF CHECKS: 48

PREPARED 02/04/2020,13:44:14
PROGRAM: GM172L
CITY OF OLYMPIA
BANK: 01 US Bank - Accounts Payable

VOIDED CHECKS REGISTER
SELECTED BY VOID DATE
FROM: 01/26/2020 TO: 02/01/2020

ACCOUNTING PERIOD 01/2020
REPORT NUMBER 25

CHECK NO	VENDOR NO	VENDOR NAME	CHECK DATE	CHECK AMOUNT	DATE VOIDED	BANK CODE	ORIGINAL AMOUNT
3721822	19653	MONICA SCHNEIDER	12/17/2019	.00	01/28/2020	01	588.77
3722145	19653	MONICA SCHNEIDER	12/24/2019	.00	01/28/2020	01	600.00
3723281	30518	HP INC	01/28/2020	.00	01/28/2020	01	.00
3723324	18135	WA ST OFFICE OF THE TREASURER	01/28/2020	.00	01/28/2020	01	.00

BANK: 01 US Bank - Accounts Payable

NO. OF CHECKS: 4 CHECKS VOIDED .00 1,188.77 ***

CHECK NO	VENDOR NO	VENDOR NAME	CHECK DATE	CHECK AMOUNT	DATE VOIDED	BANK CODE	ORIGINAL AMOUNT

TOTAL FOR ALL BANKS

NO. OF CHECKS: 4 TOTAL CHECKS VOIDED .00 1,188.77 ***

CITY OF OLYMPIA
PAYROLL CERTIFICATION

The Administrative Services Director of the City of Olympia, Washington, hereby certifies that the payroll gross earnings, benefits, and LEOFF I post-retirement insurance benefits for the pay cycle ending **1/31/2020** have been examined and are approved as recommended for payment.

Employees Gross Pay:	**$ 2,333,716.77**
Fire Pension Gross Pay:	**$ -**
TOTAL	**$ 2,333,716.77**

Payroll Check Numbers	*92575*	*92575*	**Manual Checks**
And			**Fire Pension Checks**
And			**Manual Checks**
And	*92576*	*92594*	**Semi Payroll Checks**

and Direct Deposit transmission.

2/5/2020
DATE

Debbie L Sullivan
ADMINISTRATIVE SERVICES DIRECTOR

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of Bid Award for Woodruff Park Sport Court Reconstruction Project

Agenda Date: 2/25/2020
Agenda Item Number: 4.D
File Number:20-0181

Type: contract **Version:** 1 **Status:** Consent Calendar

Title
Approval of Bid Award for Woodruff Park Sport Court Reconstruction Project

Recommended Action
Committee Recommendation:
Not referred to a committee.

City Manager Recommendation:
Move to award the construction contract to Black Hills Excavating, Inc. in the amount of $515,691.06 and authorize the Interim City Manager to execute the contract.

Report
Issue:
Whether to approve awarding the construction contract for the Woodruff Park Sport Court Reconstruction project to Black Hills Excavating, Inc.

Staff Contact:
Jake Lund, Senior Engineer, Parks, Arts, & Recreation, 360.753.8152

Presenter(s):
None - Consent Calendar Item.

Background and Analysis:
Originally constructed sometime in the 1960s or 1970s, the existing tennis courts at Woodruff Park are the oldest courts in the Olympia Parks system. The useful design life of a typical tennis court is 25-30 years. The original concrete slabs have cracked over time, and many attempts have been made to maintain the playing surface and extend lifespan including an asphalt overlay, crack sealing, and patching.

The project provides for the demolition of the existing tennis courts and reconstruction of new courts and associated site improvements. The finished project will include the construction of two new tennis courts, four dedicated pickleball courts, new fencing, improvements to the onsite parking lot and sidewalks, site storm drainage improvements, and other miscellaneous park upgrades.

The City received twelve bids on January 15, 2020. Black Hills Excavating, Inc., was the lowest responsible bidder with a bid of $515,691.06. The Engineer's Estimate of construction cost was $513,513.26.

Neighborhood/Community Interests (if known):
The Parks Department had been contacted many times by park users about cracking and trip issues on the existing tennis courts. A very active and growing pickleball community has also voiced need for dedicated pickleball courts in Olympia. There are currently no dedicated, regulation-size pickleball courts within the Olympia Parks system.

Options:
1. Award the construction contract to Black Hills Excavating, Inc. in the amount of $515,691.06 and authorize the City Manager to execute the contract. The project proceeds as planned.
2. Do not award the contract, reject all bids, and request that staff rebid the project. Delaying the project could result in higher bids and will require additional staff time to modify and rebid the project.

Financial Impact:
This project is identified in the Capital Facilities Plan and the Park Capital Asset Management Plan (CAMP). Funding for the project comes from Olympia Metropolitan Park District funds.

The low bid of $515,691.06 is 0.4% above the Engineer's estimate.

Overall project costs:

Total Low Bid:	$ 515,691
Contingency to Award (10%):	$ 51,569
Engineering: Design, Construction Mgmt.	$ 60,000
Total Estimated Project Cost:	$ 627,260
Available Project Funding:	$ 700,000

Attachments:
Summary of Bids

SUMMARY OF BIDS RECEIVED

Project Name: Woodruff Park Sport Court Reconstruction
Project Number: 1866H
Federal Project Number: N/A
Bid Opening Date: 1/15/2020

ENGINEER'S ESTIMATE	CITY OF OLYMPIA	$	513,513.26
Bid #1	Black Hills Excavating Inc.	$	515,691.06
Bid #2	Reed Trucking & Excavatir	$	544,051.68
Bid #3	RW Scott Construction	$	559,559.00
Bid #4	C&R Tractor and Landscap	$	585,384.57
Bid #5	Nordland Construction NV	$	589,892.10
Bid #6	Rognlin's, Inc.	$	601,060.37
Bid #7	Nordvind Company LLC	$	613,969.80
Bid #8	Midway Underground LLC	$	619,503.66
Bid #9	KBH Construction	$	628,912.20
Bid #10	Sound Pacific Constructior	$	680,392.50
Bid #11	J.A. Morris Construction, L	$	777,310.53
Bid #12	Harkness Construction	$	865,451.83

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of Appointment of Nancy Clauson (Peterson) to the Capital Area Regional Public Facilities Board

Agenda Date: 2/25/2020
Agenda Item Number: 4.E
File Number:20-0180

Type: decision **Version:** 1 **Status:** Consent Calendar

Title
Approval of Appointment of Nancy Clauson (Peterson) to the Capital Area Regional Public Facilities Board

Recommended Action
Committee Recommendation:
Not referred to a committee.

City Manager Recommendation:
Move to approve the appointment of Nancy Clauson (Peterson) as a Regional Representative to the Capital Area Regional Public Facilities District Board for a 4-year term ending March 1, 2024.

Report
Issue:
Whether to appoint Nancy Clauson (Peterson) as a Regional Representative to the Capital Area Regional Public Facilities District Board.

Staff Contact:
Susan Grisham, Executive Assistant, 360.753.8244

Presenter(s):
None - Consent Calendar Item.

Background and Analysis:
The Capital Area Regional Public Facilities District (CARPFD) Board is an interjurisdictional body created by the cities of Olympia, Lacey, Tumwater and Thurston County.

The purpose of this district is to receive PFD revenues from the State and then enter into contracts with local entities for regional projects, based on the Interlocal Agreements. Currently the CARPFD has contracts with the city of Lacey for the Regional Athletic Complex (RAC) and the City of Olympia for the Hands on Children's Museum.

The CARPFD is managed by a seven-member Board of Directors. Three members of the Board are

appointed jointly by the four local jurisdictions. The remaining four members are appointed individually by each of the jurisdictions to four-year terms. A roster of current boardmembers is attached.

The Regional Representative position is one of the three positions appointed jointly by the jurisdictions. Nancy Clauson (Peterson) has expressed an interest to continue in her capacity as a Regional Representative on this Board. A brief bio for Ms. Clauson (Peterson) is attached.

Staff recommends the re-appointment of Nancy Clauson (Peterson) to the CARPFD Board.

Neighborhood/Community Interests (if known):
None known.

Options:
1. Appoint Nancy Clauson (Peterson) to a 4-year term.
2. Refer the matter to the General Government Committee for a recommendation.

Financial Impact:
None.

Attachments:
CARPFD 2019 Boardmembers
Nancy Clauson (Peterson) CARPFD Bio

CAPITAL AREA REGIONAL PUBLIC FACILITIES DISTRICT (CAR-PFD)

Nomination for re-appointment of Regional Representative: Nancy Clauson

Nancy Clauson (Peterson) served on the Lacey City Council from 1993 through 2007. She was elected Mayor from 1996 – 1999, and Deputy Mayor from 2004 – 2007. During her tenure on the council, she served on the Finance & Economic Development Committee, General Government & Public Safety Committee, and the Utilities Committee. Nancy represented the City of Lacey regionally on the LOTT Board, the Human Services Review Council, and TOGETHER!.

Nancy was appointed to serve on the Lacey Leadership Council of past mayors working on emerging regional issues, and participated in the visioning process for the Woodland District Strategic Plan. Nancy has volunteered at St. Peter's Hospital, and performs volunteer work at St. Michael's Church. She is retired from the Department of Labor & Industries.

Prior to her public service as a Councilmember, Nancy was appointed to the Lacey Planning Commission from 1987 – 1993, serving for a time as chair.

During the formation of the CAR-PFD in 2008, Nancy was an active participant throughout the process. She has served on the board as a regional representative since 2012, and is currently serving as President for 2019-2020. Nancy has expressed an interest in continuing to serve on the board.

CAPITAL AREA REGIONAL – PUBLIC FACILITIES DISTRICT

ESTABLISHED IN 2003

BOARD OF DIRECTORS (2019-2020)

FOUR YEAR TERM - NO TERM LIMITS

Nancy Clauson, President (2019-2020) *Regional Representative* 2103 Alonda Ln NE Olympia WA 98516 (C) 360.485.8242 nancypetey@comcast.net Appointed: 03.03.2012 Reappointed: 03.01.2016 Term Expiration: 03.01.2020	**Ken Parsons, Secretary/Treasurer (2019-2020)** *Thurston County Representative* 4747 Shincke Rd NE (H) 360.791.4433 wa.kenparsons@gmail.com Appointed: 02.25.2003 Reappointed: 02.12.2007, 03.01.2011, 2015, 09.18.18 Term Expiration: 03.01.2023
Chris Leicht *Regional Representative* 920 East Bay Dr NE, 3D-301 Olympia WA 98506 (H) 360.352.1949 (C) 360.239.2179 leichtc@comcast.net Appointed: 04.01.2010 Reappointed: 05.22.2014, 07.12.2018 Term Expiration: 03.01.2022	**Dennis Reed** *City of Lacey Representative* 609 Enterprise Dr NE Lacey WA 98516 (H) 360.438.1352 (F) 360.438.9119 liondennis6@gmail.com Appointed: 02.25.2003 Reappointed: 03.01.2007, 2011, 2015, 12.06.18 Term Expiration: 03.01.2023
John Grausam *Regional Representative* 4708 Belair Drive SE Lacey, WA 98503 (C) 360.456.6857 jwgrausam@gmail.com Appointed: 05.07.2019 (unexpired term) Term Expiration: 03.01.2021	**David Brine** *City of Olympia Representative* 1716 Camelot Park SW Olympia WA 98512 (H) 360.280.9898 d.brine@comcast.net Appointed: 12.04.2007 Reappointed: 03.01.2011, 2015, 02.05.19 Term Expiration: 03.01.2023
City of Lacey Administrative Support City Clerk's Office Lacy City Hall 420 College St SE Lacey WA 98503 360.486.8704 pedmonds@ci.lacey.wa.us	**Trent Grantham** *City of Tumwater Representative* 902 "G" Street SW Tumwater WA 98512 (H) 360.556.3299 (W) 360.357.6972 trent.grantham@scjalliance.com Appointed: 03.01.2011 Reappointed: 03.01.2015, 10.16.18 Term Expiration: 03.01.2023

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of a Resolution Authorizing an Interlocal Agreement between the City of Olympia Fire Department and WA State Department of Natural Resources - Forestland Response Agreement

Agenda Date: 2/25/2020
Agenda Item Number: 4.F
File Number:20-0160

Type: resolution **Version:** 1 **Status:** Consent Calendar

Title
Approval of a Resolution Authorizing an Interlocal Agreement between the City of Olympia Fire Department and WA State Department of Natural Resources - Forestland Response Agreement

Recommended Action
Committee Recommendation:
Not referred to a committee

City Manager Recommendation:
Move to approve the resolution authorizing the Interlocal Agreement with WA State Department of Natural Resources - Forestland Response Agreement, and authorizing the Interim City Manager to sign the agreement.

Report
Issue:
Whether to approve the resolution authorizing the Interlocal Agreement with WA State Department of Natural Resources for the Forestland Response Agreement, which provides forestland mutual aid response that will support Olympia Fire Department with resources to extinguish and investigate cause of fires in the Urban Wildland Interface areas of the City.

Staff Contact:
Toby Levens, Finance Coordinator, Olympia Fire Department, 360.753.8431
Greg Rightmier, Battalion Chief, Olympia Fire Department, 360.753.2703

Presenter(s):
None - Consent Calendar Item

Background and Analysis:
The Department of Natural Resources (DNR) collects property taxes on certain lands and is statutorily charged with the protection of those lands from wildfire. Within the City of Olympia limits

are land parcels, such as the woods around Grass Lake and the Percival Creek water shed, that fall into the definition of “forest lands.” In years past, the City of Olympia Fire Department has taken a lead role in the extinguishment of fires on these parcels and has worked with mutual aid partners and the DNR to access manpower, equipment and technical expertise.

The Forestland Response Agreement provides the legal and practical framework that DNR uses to guide the operations in these Wildland Urban Interface areas with fire departments and districts throughout the State. This agreement specifies how the City of Olympia Fire Department and the DNR will cooperate during an emergency response. The agreement provides guidelines on how resources are to be ordered, who has the responsibility of leading the response and how that responsibility is transferred along with details on payment rates and invoice processing. Should the City need outside resources or be part of a mutual aid response outside the City, the agreement will provide the mechanism for those services to be reimbursed by the DNR.

Neighborhood/Community Interests (if known):
N/A

Options:

1. Approve the resolution authorizing the Interlocal Agreement. Accept the terms of the Interlocal Agreement and authorize the City Manager to sign the Agreement.

2. Do not approve the resolution authorizing the Interlocal Agreement and provide staff guidance.

Financial Impact:
If there is a wildland fire within the City limits that requires expensive resources such as aviation assets, heavy equipment or hand crews, the City will be liable for those expenditures until or unless payment by DNR can be negotiated at the time. With this Forestland Response Agreement in place, DNR can provide mutual aid response and a standard cost sharing formula is already in place, so no negotiations will be needed.

Attachments:
Resolution
Agreement

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OLYMPIA, WASHINGTON, APPROVING AN INTERLOCAL AGREEMENT BETWEEN THE CITY OF OLYMPIA AND THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES FOR FORESTLAND RESPONSE AND FORESTLAND FIRE MUTUAL ASSISTANCE.

WHEREAS, the Washington State Department of Natural Resources (DNR) and the City of Olympia Fire Department (OFD) seek to cooperate with one another to provide mutual assistance in the control and suppression of forestland fire in Olympia and elsewhere, and therefore seek to enter into a Forestland Response Agreement, an interlocal agreement under RCW chapter 39.34, the Interlocal Cooperation Act; and

WHEREAS, the Forestland Response Agreement will govern how the agencies will work together to fight forestland fires within or adjacent to Olympia, how DNR will dispatch OFD firefighting resources to forestland fires outside of Olympia or the adjacent area, and pay for the use of such resources, and other related matters;

NOW, THEREFORE, THE OLYMPIA CITY COUNCIL DOES HEREBY RESOLVE as follows:

1. The Olympia City Council hereby approves the form of the Forestland Response Agreement between the City of Olympia and Washington State Department of Natural Resources for reimbursement and the terms and conditions contained therein.

2. The Interim City Manager is authorized and directed to execute on behalf of the City of Olympia the Forestland Response Agreement, and any other documents necessary to execute said Agreement, and to make any minor modifications as may be required and are consistent with the intent of the Agreement, or to correct any scrivener's errors.

PASSED BY THE OLYMPIA CITY COUNCIL this _____ day of _____ 2020.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
DEPUTY CITY ATTORNEY

FORESTLAND RESPONSE AGREEMENT

Agreement No. 93-099279

This Agreement is entered into between the state of Washington, Department of Natural Resources, **South Puget Sound Region**, hereinafter referred to as "DNR", and the below named Fire Protection District/Department, hereinafter referred to as "District/Department."

City of Olympia for Olympia Fire Department
100 Eastside St NE
Olympia, WA 98506
Phone: 360-753-8348
FAX: 360-753-8054
Email: fire@ci.olympia.wa.us

Authority: This Agreement is entered into by DNR under the authority of RCW 76.04.015, RCW 76.04.135 and RCW 76.04.610(3); and by the District/Department under the authority of RCW 52.12.031, RCW 52.12.125, RCW 35A.11.010 and RCW 35A.38.010; and DNR and District/Department in conformity with RCW 39.34, the Interlocal Cooperation Act.

In consideration of the terms, conditions, and covenants contained herein, or attached and incorporated and made a part hereof, the Parties mutually agree as follows:

1. **Purpose:** The purpose of this Agreement is to (1) provide for mutual assistance and cooperation in the control and suppression of forestland fire and therefore to contract for the District/Department to provide fire protection services to an area within the jurisdiction of DNR and located in, or adjacent to, the District/Department and to contract for the DNR to assist in fire protection services on forestland within District/Department jurisdiction; and (2) dispatch and pay for fire service resources outside the fire service District/Department jurisdictional boundaries.

2. **Scope:** This Agreement pertains to forestland fire incidents within or adjacent to the District/Department boundaries and to District/Department resources ordered through the DNR Region or Division for dispatch outside of District/Department boundaries for support provided by DNR as outlined in Attachment A – Operational Guidelines for

Resources ordered through the DNR Region or Division for dispatch outside of District/Department boundaries.

3. **Term.** The term of this Agreement is **June 7, 2019**, or date of execution, whichever is later, through **June 7, 2024**.

4. **Jurisdictional Responsibility:** Within or adjacent to the District/Department boundaries, the statutory jurisdictional responsibility for fire control on forestland varies. It may be:

   (1) **Sole DNR Jurisdiction:** Land subject to Forest Fire Protection Assessment and District/Department is NOT collecting fire protection levy

   (2) **Sole District/Department Jurisdiction:** Land subject to District/Department fire protection levy and not subject to Forest Fire Protection Assessment.

   (3) **Joint Jurisdiction:** Land subject to Forest Fire Protection Assessment and the District/Department is collecting fire protection levy.

5. **Mutual Aid Fire Incident Response:**

   (1) **Sole DNR Jurisdiction:** In the event of a fire emergency in a sole DNR jurisdiction area, the DNR will respond. The District/Department may respond to provide immediate control action, minimize fire loss, and thereby indirectly protect its own jurisdiction area. DNR may request response from the District/Department to gain timely initial attack and control action, or to supplement DNR resources.

   (2) **Sole District/Department Jurisdiction:** In the event of a fire emergency in a sole District/Department jurisdiction area, the District/Department will respond. DNR may respond to provide immediate control action, minimize fire loss, and thereby indirectly protect its own jurisdiction area. The District/Department may request that DNR provide supplemental resources for fire emergency operations and support.

   (3) **Joint Jurisdiction:** In the event of a fire emergency in a joint jurisdiction area, both DNR and the District/Department will respond, subject to the availability of resources.

6. **Off-Season Incidents:** For this Agreement, no incident will be considered off-season. Fire season will be January 1-December 31 each year.

7. **Command:**

   (1) **Sole DNR Jurisdiction Incidents:** When the District/Department is the first arriving agency, the District/Department on-site initial responders shall establish command until released by a representative of DNR.

(2) **Sole District/Department Jurisdictional Incidents:** When DNR is the first arriving agency, the DNR on-site initial responders shall establish command until released by a representative of the District/Department.

(3) **Joint Jurisdiction Incidents:** The first arriving agency initial responders shall establish command and, upon the arrival of the other agency, unified command will be established and used for incident management.

8. Fire Control and Suppression Definitions:

(1) **Forestland:** As the term is defined by RCW 76.04.005.

(2) **Ordering:** Prior to the arrival of DNR at the incident, the initial attack incident commander may order special resources through DNR. That decision may be documented and payment authorized (see Section 11 of this Agreement) by DNR prior to the mobilization of special resources.

(3) **Special Resources:** Air resources, dozers, heavy equipment, or other resources deemed necessary to contain and control the fire.

9. Operation Guidelines:

(1) **Forestland Response:** Representatives of the District/Department and DNR shall mutually develop operation guidelines that provide principles, direction, and guidance for the conduct of fire control operations related to forest land response. The operation guidelines shall be reviewed at least annually, and revised as necessary to achieve cooperation and understanding.

(2) **DNR Dispatch:** See Attachment A - Operation Guidelines for resources ordered through the DNR Region or Division for dispatch outside of the District/Department jurisdictional boundaries; which is incorporated by reference herein.

10. Fire Investigation: The District/Department and DNR agree to protect the origin area of any fire to the best of its ability. Fires will be jointly investigated when an incident originated in a joint jurisdiction area. A DNR fire investigator may investigate fires originating on, spreading to, or threatening land subject to Forest Fire Protection Assessment (i.e., sole DNR or joint jurisdiction areas).

11. Costs:

(1) **Charges Not Required:** One purpose of this Agreement is mutual assistance and cooperation in the control and suppression of fires (see Section 1 - Purpose). In most instances, resource costs will not be charged to the other Party. However, there may be circumstances or conditions where the District/Department or DNR desires or is required to charge, or request reimbursement, for resource costs as described in Subsections (2), (3), (4), and (5) below.

(2) **Sole DNR Jurisdiction:** If the District/Department responds, DNR will pay for District/Department personnel and equipment costs outside of mutual aid unless otherwise negotiated.

(3) **Sole District/Department Jurisdiction:** If DNR responds, the District/Department will pay for DNR personnel and equipment costs outside of mutual aid unless otherwise negotiated.

(4) **Joint Jurisdiction:** Initial attack through complete extinguishment of the fire, each Party will pay its own costs.

(5) **DNR Dispatch:** If District/Department personnel is dispatched by DNR outside of District/Department jurisdictional boundaries, DNR will pay for District/Department personnel and equipment costs.

12. Cost Reimbursement Procedures:

(1) **Forestland Response:** Provisions within this Agreement for reimbursement of costs related to forestland response are subject to the following conditions:

(a) Notice: Prior to costs being incurred as allowed by this Agreement (other than DNR Dispatch), notice of such expenditure must be given to DNR by the requesting agency prior to the expenditure or commitment of funds.

(b) Invoice: Any resource provider costs, which are to be billed, must be invoiced within sixty (60) business days of the last date of incurred expense for the incident.

(2) **DNR Dispatch:** Provisions within this Agreement for reimbursement of costs related to DNR dispatch are outlined in Attachment A - Operation Guidelines for resources ordered through the DNR Region or Division for dispatch outside of the District/Department jurisdictional boundaries; which is incorporated by reference herein.

13. Cost Reimbursement Rates:

(1) Forestland Response:

(a) Equipment costs shall be paid to the resource provider at the DNR Wage and Equipment Rates or as otherwise agreed to in writing by the respective authorized agency representatives.

(b) Career/permanent and seasonal personnel costs will be reimbursed to the resource provider at the resource provider's actual total cost. This will include backfill costs as outlined in the State Mobilization Plan.

(2) DNR Dispatch:

Cost reimbursement rates related to DNR dispatch are outlined in Attachment A - Operation Guidelines for resources ordered through the DNR Region or Division for dispatch outside of the District/Department boundaries.

14. Insurance: DNR is an agency of the state of Washington and is therefore self-insured under the State's Self-Insurance Liability Program. The District/Department shall, at all times during the term of this Agreement at its sole cost and expense, buy and maintain insurance of the types and amounts listed below. Failure to buy and maintain the required insurance may result in the termination of the Agreement at DNR's option. If the District/Department is self-insured, evidence of its status as self-insured will be provided to DNR, and if deemed acceptable by DNR, shall satisfy the insurance requirements specified by this Section. The limits of insurance to be bought and maintained by the District/Department shall not be less than as follows:

Minimum Coverage Requirements: These limits may not be sufficient to cover all liability losses and related claim settlement expenses. Purchase of these minimum limits of coverage does not relieve the District/Department from liability for losses and settlement expenses greater than these amounts. DNR shall not be charged for the cost for insurance coverage(s).

District/Department is required to purchase insurance for a period of 36 months after completion of this Agreement. This requirement may be satisfied by the continuous purchase of an extended agreement. This requirement may be satisfied by the continuous purchase of an extended reporting period. During the term of the Agreement, District/Department must purchase and maintain the insurance coverage and limits specified below:

(1) **Commercial General Liability (CGL) Insurance or District/Department Equivalent**. District/Department must purchase and maintain CGL on an Insurance Services Office (ISO) form CG 00 01 or equivalent form, covering liability arising from premises, operations, independent contractors, personal injury, products-completed operations, and liability assumed under an insured contract. Such insurance must be provided on an occurrence basis. If insurance is written on a "claims made" basis, the policy shall provide full coverage for prior acts or include a retroactive date that precedes the effective date of this Agreement. Insurance must include liability coverage with limits not less than those specified below:

Description	Dollar Amount
General Aggregate Limit (Other than products-completed operations)	$2,000,000
Each Occurrence Limit	$2,000,000

(2) **Employer's liability ("Stop Gap") Insurance**: District/Department shall purchase and maintain employer's liability insurance and if necessary, commercial umbrella liability insurance with limits not less than $1,000,000 each accident for bodily injury by accident or $1,000,000 each employee for bodily injury by disease.

(3) **Business Auto Policy (BAP) Insurance:** If activities pursuant to this Agreement involve the use of vehicles, to include FEPP vehicles, the District/Department must purchase and maintain a BAP on an Insurance Services Office (ISO) form CA 00 01 or equivalent form. The Description of Covered Autos must include one or more of the following:

a. "Any Auto" (Symbol 1).

b. If District/Department-owned personal vehicles are used, the BAP must cover "Owned Autos Only" (Symbol 2).

c. If District/Department hires autos, the BAP must cover "Hired Autos Only" (Symbol 8).

d. If District/Department employee's vehicles are used, the BAP must cover "Non-Owned Autos Only" (Symbol 9).

Such insurance must be provided on an occurrence basis. The BAP insurance must include liability coverage with limits not less than those specified below. The District/Department is responsible for any deductible.

Description	Each Accident
Bodily Injury and Property Damage	$1,000,000

(4) **Workers Compensation Insurance or Equivalent:** The District/Department shall comply with all state of Washington workers compensation statutes and regulations. Coverage shall be provided for all employees and volunteers of the District/Department and shall include bodily injury (including death) that arises out of or in connection with the performance of this Agreement.

15. **Service Limitations.** The responses and fire suppression services provided for under this Agreement are intended to be rendered on the same basis as such services are rendered to other areas within the District/Department or DNR jurisdictions and neither Party assumes liability for failure to provide services by reason of any circumstances beyond the Party's control. In the event of simultaneous fires or medical aid calls within the areas covered by this Agreement whereby facilities of either Party are taxed beyond the Party's ability to render equal protection, the officers and agents of the Party shall have sole discretion as to which call shall be answered first. The responding Party shall have sole discretion to determine the manner and method of responding to and handling emergencies under this Agreement consistent with Section 7 - Command of this Agreement.

16. **Benefits**. This Agreement is entered into for the benefit of the parties to this Agreement only and shall confer no benefits, direct or implied, on any third persons.

17. **Renegotiation and Modification:** The terms and conditions of this Agreement may be renegotiated at the request of either Party between January 1 and March 1 of any year. Any modification or amendment of this Agreement must be in writing and must be signed by duly authorized agents of the Parties.

18. **Assignment and Delegation:** This Agreement, or any right or interest therein, may not be assigned or otherwise transferred by either Party without the prior written consent of the other Party. Any attempted assignment shall be void unless made in strict conformity with this section.

Either Party may perform its duty through a delegate or agent, but shall not be thereby relieved of any duty to perform or any liability for breach of this Agreement.

19. **Remedies:** Any remedy exercised by either Party shall not be deemed exclusive and either Party may pursue any and all other remedies available to it under the law.

20. **Compliance with Laws:** Parties shall comply with all applicable federal, state, and local laws, rules and regulations that govern each component of this Agreement.

21. **Non–Waiver:** Waiver by either Party of strict performance of any provision of this Agreement shall not act as a waiver of the right of the other Party to require future strict performance of the same provision or any other provision.

22. **Interpretation and Venue:** This Agreement shall be construed and interpreted in accordance with the laws of the state of Washington. The venue of any action brought under this Agreement shall be in the Superior Court of Thurston County.

23. **Severability:** If any provision of this Agreement is held to be invalid, such invalidity shall not affect the other provisions of this Agreement that can be given effect without the invalid provision(s), and to this end the provisions of this Agreement are declared severable.

24. **Termination:** This Agreement may be terminated by either Party by the provision of ninety (90) days written notice, provided that neither Party may terminate this Agreement at any time between April 15 and October 15 of any year due to the fire danger during this period.

25. **Agreement Managers:**

DNR AGREEMENT MANAGER
Name: Jane Potter
Title: Fire Regulations Coordinator
Address: 950 Farman Ave No
City/State/Zip: Enumclaw, WA. 98022
Phone: 360-825-1631
Email: jane.potter@dnr.wa.gov

DISTRICT/DEPARTMENT AGREEMENT MANAGER
Name: Mark John
Title: Fire Chief
Address: 100 Eastside ST NE
City/State/Zip: Olympia, WA 98506
Phone: 360-753-8348
Email: fire@ci.olympia.wa.us

This Agreement supersedes all previous agreements.

By signature below, the Parties certify that the individuals listed in this Agreement, as representatives of the Parties, are authorized to act in their respective areas for matters related to this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement.

CITY OF OLYMPIA

Signature Date

Steven Jay Burney
Printed Name

Interim City Manager
Title

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Signature Date

Scott Sargent
Printed Name

South Puget Sound Region Manager
Title

APPROVED AS TO FORM

Signature Date 1/22/2020

Michael M. Young
Printed Name

Deputy City Attorney
Title

Attachment A

Operation Guidelines

Resources ordered through the DNR Region or Division for Dispatch outside of District/Department jurisdictional boundaries

Department of Natural Resources (DNR) agrees to dispatch District/Department resources to incidents outside of the Districts/Department jurisdictional boundaries as needed to meet DNR responsibilities and as approved by the District/Department. Dispatches can include out of the state of Washington. Participation by a District/Department with incidents outside its jurisdiction is voluntary and separate from involvement in State Fire Mobilization.

This Agreement extends to paid members:

- Washington Fire Service (WFS) paid members who participate on the Northwest Interagency Incident Management Teams (NWIMT primary/alternate pool/trainee) and any paid members who wish to participate in any other capacity on incidents in which District/Department supports.

This Agreement does NOT extend to volunteers:

- Members of Washington Fire Service who are volunteers will need to be hired by the DNR via the DNR casual hire process. This may be completed pre-season or at the time of the incident. Your local DNR Region office will handle the casual hire process.

District/Department agrees:

1) All personnel dispatched outside of their jurisdictional boundaries will have a valid Incident Qualification Card (red card) stating current qualifications; and will adhere to qualifications and standards described in PMS 310-1;

2) To provide a copy of the Master IQS Record for each participating employee (needed to update status in the Resource Ordering Status System (ROSS);

3) To keep equipment and personnel status current in ROSS by selecting option a. or b. below as the preferred option. List available resources on the following resource list addendum. (Check one):

   a. ☐ DNR Region will give Web-Status rights to ROSS for district employees. It is the employee's responsibility to ensure that their status is accurate.
   b. ☒ DNR Region will status your employees. For this option, you would need to provide your local DNR Region Dispatch with the status of your employees every Monday by 1200 hours. Dispatch would then update their status in ROSS for that week (0800 Tuesday to 0800 Tuesday).

   For dispatches outside of the DNR region, approval from DNR host region fire staff is required. Host region fire staff will coordinate with Wildfire Division in order to ensure statewide readiness.

4) To notify your local DNR Region of any changes in status of personnel/equipment (i.e.; dispatched/demob under State Fire Mobilization, demob & ETA home from incidents dispatched thru DNR, etc.);

5) All personnel and equipment dispatched will be paid by the District/Department; (except volunteers will follow payment procedures outlined in their individual agreement and be paid directly by DNR);

6) All Equipment and Personnel dispatched under this Agreement will arrive at each incident with a copy of their current Forestland Response Agreement.

7) Invoice for personnel and equipment costs billed to DNR will include:

   a. Original Emergency Fire Time Report (OF-288); hourly wage rate (regular and OT) for personnel hours on the OF-288. This applies to paid district/department staff. Volunteers will be paid directly by DNR.
   b. Original shift ticket (OF-286) documenting mileage to/from incident as well as mileage incurred on the incident signed by the incident supervisor.
   c. Copy of Resource Order card.

8) Invoices requesting payment for equipment (engines/tenders) will be submitted to DNR within sixty (60) business days of the last date of the incurred expense for the incident and shall include Original Emergency Equipment Use Invoice Form (OF-286) and shift tickets (OF-297); and

9) Invoices requesting payment for other travel costs (meals, lodging not provided by the incident) must be submitted to DNR within sixty (60) business days of the last date of the incurred expense for the incident.

10) Only utilize agency owned vehicles or procured rental vehicles on the fire line or off-road.

DNR agrees to:

1) Assist the District/Department with updating status in ROSS;

2) Maintain IQS records for District/Department personnel with wildland fire qualifications, if red carded through the DNR;

3) Reimburse District/Department within 30 days of invoice receipt and documentation as required above;

4) Reimburse the Fire Service District/Department at the Total Cost of personnel. This includes, regular time, overtime, and District/Department backfill for that position as outlined in the State Mobilization Plan. The DNR will not pay for muster time, wildland premium pay, or other unspecified pay provisions.

**Rental vehicles must be procured consistent with the R6 USFS rental vehicle agreement. Rental vehicle authorization must be documented on the resource order. Please speak with your local DNR Region for more specific information. In order to provide audit tracking for all rental vehicles, rentals ordered for overhead resources with ROSS O # Resource Orders, will have a support request ROSS order attached to that O# resource, with an E# assigned to the vehicle. The overhead resource and Dispatch will ensure that if that person is re-assigned or released, the supporting vehicle order will also be re-assigned or released.

DISTRICT/DEPARMENT RESOURCE LIST
OVERHEAD AND EQUIPMENT ADDENDUM

DNR will dispatch and process invoices for the following fire district members and equipment when dispatched by DNR outside of their fire district.

Overhead Resources

Name	Career or Volunteer	Backfill Required	Position/Qualifications	Team Affiliation or Single Resource
Jerry Hall	C	Y	REMS/FF2	S
Aaron Rus	C	Y	REMS/FF2	S
Jon Winkelman	C	Y	REMS/FF2	S
Jeremy Fox	C	Y	REMS/FF2	S
Matt Rios	C	Y	REMS/FF2	S
Greg Rightmier	C	Y	SCKN(t)	NWIMT 10

	EQUIPMENT make, model, year, license, VIN and type	RATE/NEGOTIATED RATE *
	Ford F150, 2016, 5988OD, 1FTF@1EG9GKD82337, Command Unit	OFM POV Rate

* The negotiated rate must be agreed upon between the signing parties prior to dispatch.

CONTACT INFORMATION:

Greg Rightmier – 360-480-5002, grightmi@ci.olympia.wa.us

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of a Resolution Authorizing an Interlocal Agreement between City of Olympia Fire Department and WA State Department of Natural Resources for the Fire District Assistance Agreement for Federal Excess Personal Property (FEPP) Program

Agenda Date: 2/25/2020
Agenda Item Number: 4.G
File Number:20-0161

Type: resolution **Version:** 1 **Status:** Consent Calendar

Title
Approval of a Resolution Authorizing an Interlocal Agreement between City of Olympia Fire Department and WA State Department of Natural Resources for the Fire District Assistance Agreement for Federal Excess Personal Property (FEPP) Program

Recommended Action
Committee Recommendation:
Not referred to committee.

City Manager Recommendation:
Move to approve the resolution authorizing the Interlocal Agreement with WA State Department of Natural Resources for the Fire District Assistance Agreement for Federal Excess Personal Property (FEPP) Program and authorizing the Interim City Manager to sign the agreement.

Report
Issue:
Whether to approve the resolution authorizing the Interlocal Agreement with WA State Department of Natural Resources for the Fire District Assistance Agreement which provides acquisition and use of firefighting and fire prevention equipment through the Federal Excess Personal Property (FEPP) Program.

Staff Contact:
Toby Levens, Finance Coordinator, Olympia Fire Department, 360.753.8431
Greg Rightmier, Battalion Chief, Olympia Fire Department, 360.753.2703

Presenter(s):
None - Consent Calendar Item

Background and Analysis:

The Department of Natural Resources (DNR) may acquire Federal Excess Personal Property (FEPP) suitable for conversion into firefighting or fire prevention apparatus and then sub-loan eligible FEPP to the Olympia Fire Department. The Fire District Assistance Agreement governs DNR's sub-loaning of FEPP to the Olympia Fire Department, and the Deparment's use, refurbishments, maintenance, and disposal of FEPP it receives through DNR. DNR may facilitate the transfer of Firefighter Property to Olympia Fire through the Firefighter Property Program (FPP). The Fire District Assistance Agreement governs the Fire Department's use, handling, and disposal of property it acquires through DNR under FPP. The Olympia Fire Department agrees to accept FEPP and FPP property in "as-is" condition, and to refurbish, equip, repair, and maintain it at no cost to DNR.

Neighborhood/Community Interests (if known):
N/A

Options:

1. Approve the Resolution authorizing the Interlocal Agreement. Accept the terms of the Interlocal Agreement and authorize the Interim City Manager to sign the Agreement.

2. Do not approve the Resolution authorizing the Interlocal Agreement and provide staff guidance.

Financial Impact:
The Interlocal Agreement will allow the City of Olympia Fire Department to use Federal Excess Personal Property (FEPP) suitable for conversion into firefighting or fire prevention apparatus. The Olympia Fire Department agrees to accept FEPP property in "as-is" condition, and to refurbish, equip, repair, and maintain it at no cost to DNR.

Attachments:
Resolution
Agreement

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OLYMPIA, WASHINGTON, APPROVING AN INTERLOCAL AGREEMENT BETWEEN THE CITY OF OLYMPIA AND THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES FOR ACQUITISTION AND USE OF FIREFIGHTING AND FIRE PREVENTION EQUIPMENT THROUGH THE FEDERAL EXCESS PERSONAL PROPERTY PROGRAM AND THE FIREFIGHTER PERSONAL PROPERTY PROGRAM.

WHEREAS, to allow the City of Olympia Fire Department (OFD) to obtain certain firefighting equipment through the Washington State Department of Natural Resources (DNR), DNR and OFD seek to enter into a Fire District Assistance Agreement, an interlocal agreement under RCW chapter 39.34, the Interlocal Cooperation Act;

WHEREAS, under the Fire District Assistance Agreement, DNR may acquire Federal Excess Personal Property (FEPP) suitable for conversion into firefighting or fire prevention apparatus and then sub-loan eligible FEPP to OFD; the Fire District Assistance Agreement governs DNR's sub-loaning of FEPP to OFD and OFD's use, refurbishment, maintenance, and disposal of FEPP it receives through DNR, and other related matters;

WHEREAS, under the Fire District Assistance Agreement, DNR may facilitate the transfer of Firefighter Property to OFD through the Firefighter Property Program (FPP); the Fire District Assistance Agreement governs OFD's use, handling, and disposal of property it acquires through DNR under the FPP;

WHEREAS, the Olympia Fire Department agrees to accept FEPP and FPP property in "as is" condition, and to refurbish, equip, repair, and maintain it at no cost to DNR;

NOW, THEREFORE, THE OLYMPIA CITY COUNCIL DOES HEREBY RESOLVE as follows:

1. The Olympia City Council hereby approves the form of the Fire District Assistance Agreement between the City of Olympia and the Washington State Department of Natural Resources for the acquisition through DNR of firefighting equipment under the Federal Excess Personal Property program and the Firefighter Property Program.

2. The Interim City Manager is authorized and directed to execute on behalf of the City of Olympia the Fire District Assistance Agreement, and any other documents necessary to execute said Agreement, and to make any minor modifications as may be required and are consistent with the intent of the Agreement, or to correct any scrivener's errors.

PASSED BY THE OLYMPIA CITY COUNCIL this _____day of _____ 2020.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
DEPUTY CITY ATTORNEY

FIRE DISTRICT ASSISTANCE AGREEMENT
CITY OF OLYMPIA - OLYMPIA FIRE DEPARTMENT

Agreement No. 93-100271

This Agreement is entered into by and between the State of Washington, Department of Natural Resources, hereinafter referred to as "DNR", and Olympia Fire Department, hereinafter referred to as "Department" and collectively referred to as the "Parties".

Authority: This Agreement is entered into by DNR under the authority of RCW 76.04.015(6), by Fire Protection Districts, under the authority of RCW 52.12.031 and Fire Departments under the authority of RCW 35.21.010 in conformity with RCW 39.34, the Interlocal Cooperation Act.

In consideration of the terms, conditions and covenants contained herein, or attached and incorporated and made a part hereof, the Parties mutually agree as follows:

Purpose: This Agreement addresses the terms and conditions for: (1) all federal excess property sub-loaned by DNR to the Department under the Federal Property and Administrative Services Act of 1949, as amended (P.L. 94-519) and section 7 of the Cooperative Forestry Assistance Act of 1978 (P.L. 95-313), hereinafter referred to as the Federal Excess Personal Property program; and (2) the transfer of firefighting and emergency service property, facilitated by DNR, to the Department under the Rural Fire Department Equipment Priority Act, 10 USC 2576b, hereinafter referred to as the Firefighter Property program.

SECTION 1: FEDERAL EXCESS PERSONAL PROPERTY

1.01 Federal Excess Personal Property: Upon request from the Department, and subject to its compliance with the requirements imposed by law and this Agreement to administer, account for, use and dispose of Federal Excess Personal Property (FEPP) acquired under the Federal Property and Administrative Services Act, DNR will sub-loan eligible FEPP to the Department. Federal regulations are amended from time to time and Department agrees to comply with current and future regulations.

1.02 Property Acquisition: The Department is required to identify its needs by completing a request form provided by DNR. DNR will acquire eligible FEPP suitable for conversion into firefighting or fire prevention apparatus. FEPP will be sub-loaned to fire districts and departments "as is" with no disclosure or warranty of implied condition.

(1) Ownership of all non-consumable FEPP shall remain the property of the U.S. Forest Service.

(2) All FEPP must be used for firefighting and fire prevention activities. Personal use of FEPP for purposes not directly associated with normal responsibilities of the Department is prohibited.

1.03 Identification: DNR will identify all non-consumable FEPP with a program identification tag with an inventory tracking number.

1.04 Equipment Use, Refurbishment, and Maintenance Requirements:

(1) The Department agrees to accept FEPP in "as is" condition, and to refurbish, equip, repair, and maintain it at no cost to DNR. FEPP must be put into service within one year of acceptance. The Department may receive an extension of the one-year time limit for good cause upon written request to DNR prior to the one-year anniversary date.

(2) If FEPP is not put into service within one year and the Department does not receive written approval from DNR for an extension, DNR will notify the Department of an "in service" violation and reallocate or dispose of the item.

(3) All vehicles and trailers must be registered and licensed by the Department through the Washington Department of Licensing, and copies provided to DNR.

(4) Prior to placing FEPP in service, the Department must remove all military or governmental exterior logos, insignias and identification numbers. FEPP must be painted when original paint is deteriorated or peeling. In addition, remove or paint over all military paint patterns for vehicles, trailers, and other equipment operated on public roads.

(5) Cannibalization. Cannibalization is the practice of disassembling unserviceable FEPP to use serviceable parts on similar units. The removal of any parts other than minor items is cannibalization. It is permissible to strip components from one or more pieces of FEPP to create a usable apparatus subject to written approval of the USDA Forest Service through DNR. The process to strip and dispose of excess components must be completed within one year of written approval to cannibalize. The Department will notify DNR immediately after cannibalization is complete. DNR will dispose of remaining components through the USDA Forest Service and General Services Administration (GSA).

(6) In case of loss, theft, damaged, destroyed, or vandalized property, the Department is required to notify DNR within 48 hours of occurrence. Upon notification, DNR will submit appropriate forms to the Department for documentation, and to the USDA Forest Service for appropriate action. If the property is insured, USDA Forest Service must receive a share of any insurance proceeds equal to their ownership share in the property. If gross negligence is involved, the Department may be required to pay fair market value for the FEPP or repair or replace the property at Department expense.

1.05 Property Disposal: The Department agrees to report, in a timely manner, all inoperable, cannibalized, not in use, or seldom used FEPP to DNR for reallocation or disposal. DNR will conduct reallocation or disposal activities at the Department's facility. The

Department agrees to facilitate all required activities and to obtain signed documents to complete the reallocation or disposal process.

1.06 Property Inventory/Audit: Upon request by DNR, the Department agrees to make FEPP items available for the purpose of conducting a physical inventory and to facilitate a program review. The Department shall provide access to and the right to examine all records, books, papers, or documents relating to the FEPP to facilitate a State or Federal audit. The Department is required to maintain property records for a minimum of six (6) years and three (3) months after receipt of all non-consumable FEPP (i.e. registration, insurance, final disposal).

SECTION 2: FIREFIGHTER PROPERTY PROGRAM

2.01 Firefighter Property Program: Upon request from the Department, and subject to Department compliance with the requirements imposed by law and this Agreement to administer, account for, use and dispose of Department of Defense (DOD) excess property, DNR will facilitate transfer of such property to the Department under the Firefighter Property (FFP) program, as authorized by 10 U.S.C. 2576b. Federal regulations are amended from time to time and Department agrees to comply with current and future regulations.

2.02 Property Acquisition: The Department is required to identify its FFP needs by completing a request form provided by DNR. DNR will facilitate transfer of FFP suitable for use or conversion to use in support of the Department's firefighting and emergency services. FFP will be transferred "as is" with no disclosure or warranty as to implied condition.

2.03 Title and Ownership:

(1) Conditional ownership and title (when title is applicable) to all non-consumable FFP will be transferred to the Department, with the exception of "controlled property" as defined in 2.05 below. The Department is responsible to register and transfer title to any vehicle or trailer obtained through the FFP program in the name of the Department in accordance with applicable state law, and provide copies to DNR. Full ownership and title will vest in the Department upon meeting the requirements in 2.04(1) below.

(2) The sale or transfer of FFP property to non-FFP participants must be in compliance with U.S. Export Control Regulations, including the Export Administration Regulations (EAR) (15 CFR Parts 730-774) and the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130). Department must notify future purchasers or transferees, in writing, of this requirement.

(3) FFP cannot be sold or transferred to non-U.S. citizens, and the sale or transfer of Demilitarization Q6 FFP requires Trade and Securities Commission approval.

2.04 Property Use:

(1) All FFP shall be refurbished and put into service in support of the Department's firefighting or emergency services within one year of transfer, at no cost to DNR. In

addition, all FFP must be retained and used in service for a minimum of one year after being put into service.

(2) If the Department does not meet the FFP program in service requirements, the Department agrees, at no cost to DNR, to return, transfer, or scrap the FFP as directed by DNR and in compliance with FFP program requirements. In addition, DNR may suspend the Department from future participation in the FFP program.

(3) Department will label all FFP with an inventory number provided by DNR. Inventory number must remain readable until in-service requirements are complete.

(4) Within one year after transfer, Department will provide proof in a form acceptable to DNR that FFP is in service.

(5) Department use of FFP must be for its intended purpose. Personal use is prohibited.

(6) Cannibalization of FFP is prohibited.

(7) Prior to placing FFP in service, the Department must remove all military or governmental exterior logos, insignias and identification numbers. In addition, remove or paint over all military paint patterns for vehicles, trailers, and other equipment operated on public roads.

2.05 Controlled Property:

(1) FFP identified by DOD as demiliterization B, C, D, E, F, G, and Sensitive Q3 (referred to as "controlled property") remains in the ownership of DOD, and will be tracked and inventoried in the USDA Forest Service Federal Excess Property Management Information system (FEPMIS) until final disposition. The Department is required to return controlled property to the nearest DOD Defense Logistics Agency (DLA) Disposition Services site. If a DLA site is not close, the Department may be allowed to demilitarize the FFP on site, through crushing, mutilation, cutting, and to make the item unusable for its original intended use. The USDA Forest Service and DNR will coordinate demilitarization activities through the Distribution Reutilization Policy Director at the Defense Logistics Agency. Costs required for the Department to return or demilitarize controlled property shall be the responsibility of the Department.

(2) Department must request DNR approval prior to removing any parts or components from controlled property, and must return removed parts to the nearest DLA site at its own expense.

(3) In case of lost, missing, stolen, or destroyed controlled property the Department is required to notify DNR within 48 hours of occurrence. Upon notification, DNR will submit appropriate forms to the Department for documentation, and to the DOD through the USDA Forest Service for appropriate action. If the FFP is insured, DOD must receive any insurance proceeds.

2.06 Records: The Department agrees to provide access to and the right to examine all FFP, records, books, papers or documents for all equipment transferred under the FFP program

to the USDA Forest Service (including its Office of Inspector General), DNR, DOD (including its Office of Inspector General), the Comptroller General of the United States, or their authorized representatives. The Department is required to maintain property records for a minimum of six (6) years and three (3) months after receipt of all non-consumable FFP property (i.e. registration, insurance, final disposal).

SECTION 3: GENERAL

3.01 Program Information: FEPP and FFP program information is available on the DNR website.

3.02 Hold Harmless: To the extent permitted by federal law, Department shall indemnify and hold the U.S. Government harmless from any and all actions, claims, debts, demands, judgments, liabilities, costs, and attorney's fees arising out of, claimed on account of, or in any manner predicated upon loss of or damage to property, or injuries, illness or disabilities to or death of any person or legal or political entity including state, local and interstate bodies, in any manner caused by or contributed to by Department, its agents, servants, employees, or any person subject to its control while in, upon or about the sale site and/or the site on which the property is located, or while the property is in the possession of, used by, or subject to the control of Department, its agents, servants, or employees after the property has been removed from U.S. Government control. The U.S. Government assumes no liability for damages or injuries to any person(s), or property arising from the use of the excess DoD personal property.

3.03 Insurance: The Department shall, at all times during the term of this Agreement at its sole cost and expense, buy and maintain insurance of the types and amounts listed below to cover damages or injuries to persons or property relating to the use of property obtained under this agreement. Failure to buy and maintain the required insurance may result in the termination of the Agreement at DNR's option. If the District/Department is self-insured, evidence of its status as self-insured will be provided to DNR, and if deemed acceptable by DNR, shall satisfy the insurance requirements specified by this Section.

Minimum Coverage Requirements: These limits may not be sufficient to cover all liability losses and related claim settlement expenses. Purchase of these minimum limits of coverage does not relieve the Department from liability for losses and settlement expenses greater than these amounts.

During the term of the Agreement, Department must purchase and maintain the insurance coverage and limits specified below:

(1) **Commercial General Liability (CGL) Insurance or District/Department Equivalent**. Department must purchase and maintain CGL on an Insurance Services Office (ISO) form CG 00 01 or equivalent form, covering liability arising from premises, operations, independent contractors, personal injury, products-completed operations, and liability assumed under an insured contract. Such insurance must be provided on an occurrence basis. If insurance is written on a "claims made" basis, the policy shall provide full coverage for prior acts or include

a retroactive date that precedes the effective date of this Agreement. Insurance must include liability coverage with limits not less than those specified below:

Description	Dollar Amount
General Aggregate Limit (Other than products-completed operations)	$2,000,000
Each Occurrence Limit	$2,000,000

(2) **Employer's liability ("Stop Gap") Insurance**: Department shall purchase and maintain employer's liability insurance and if necessary, commercial umbrella liability insurance with limits not less than $1,000,000 each accident for bodily injury by accident or $1,000,000 each employee for bodily injury by disease.

(3) **Business Auto Policy (BAP) Insurance:** If activities pursuant to this Agreement involve the use of vehicles, the Department must purchase and maintain a BAP on an Insurance Services Office (ISO) form CA 00 01 or equivalent form with such insurance covering liability arising out of "Any Auto".

Such insurance must be provided on an occurrence basis. The BAP insurance must include liability coverage with limits not less than those specified below. The Department is responsible for any deductible.

Description	Each Accident
Bodily Injury and Property Damage	$1,000,000

(4) **Workers Compensation Insurance or Equivalent:** The Department shall comply with all state of Washington workers compensation statutes and regulations. Coverage shall be provided for all employees and volunteers of the Department and shall include bodily injury (including death) that arises out of or in connection with the performance of this Agreement

3.04 Non-Discrimination. During the performance of activities under this Agreement, Department shall comply with all federal, state and local non-discrimination laws, regulation and policies. In the event of non-compliance or refusal to comply with any non-discrimination law, regulation or policy, this Agreement may be rescinded, cancelled or terminated in whole or in part, and Department may be declared ineligible for further participation in FEPP and/or FFP.

3.05 Renegotiation and Modification: The terms and conditions of this Agreement may be renegotiated at the request of either Party. Any modification or amendment of this Agreement must be in writing and signed by duly authorized agents of the Parties.

3.06 Assignment and Delegation: This Agreement, or any right or interest therein, may not be assigned or otherwise transferred by either Party without the prior written consent of the other Party. Any attempted assignment shall be void unless made in strict conformity with this section. Either Party may perform its duty through a delegate or agent, but shall not be thereby relieved of any duty to perform or any liability for breach.

3.07 Remedies: Any remedy exercised by either Party shall not be deemed exclusive, and either Party may pursue any and all other remedies available to it under the law.

3.08 **Non–Waiver:** Waiver by either Party of strict performance of any provision of this Agreement shall not act as a waiver of the right of the other Party to require future strict performance of the same provision or any other provision.

3.09 **Interpretation and Venue:** This Agreement shall be construed and interpreted in accordance with the laws of the state of Washington. The venue of any action brought under this Agreement shall be in the Superior Court of Thurston County.

3.10 **Severability:** If any provision of this Agreement is held to be invalid, such invalidity shall not effect the other provisions of this Agreement that can be given effect without the invalid provision(s), and to this end the provisions of this Agreement are declared to be severable.

3.11 **Termination:** This Agreement may be terminated by either Party upon ninety (90) days written notice. Termination of this Agreement makes the Department ineligible to participate in FEPP or FFP, and Department agrees to dispose of all FEPP per 1.05 above and all FFP that has not met the requirements of 2.04(1) above per 2.04(2) above.

3.12 **Compliance with Laws:** The Department shall comply with all applicable federal and state laws and regulations that govern each component of this Agreement.

3.13 **Term of Agreement:** This Agreement shall be effective from the date of the last signature for a term of five years unless otherwise terminated in accordance with the terms of this Agreement.

3.14 This Agreement supersedes all previous agreements.

By signature below, the Agencies certify that the individuals listed in this document, as representatives of the Agencies, are authorized to act in their respective areas for matters related to this instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement.

CITY OF OLYMPIA

Signature Date

Steven J. Burney
Printed Name

Interim City Manager
Title

Approved as to Form:

Deputy City Attorney

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Signature Date

Scott Sargent
Printed Name

South Puget Sound Region manager
Title

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of a Resolution Authorizing Amendment 1 to the Agreed Order with the Washington State Department of Ecology for Remediation of the Former West Olympia Landfill Site

Agenda Date: 2/25/2020
Agenda Item Number: 4.H
File Number:20-0190

Type: resolution **Version:** 1 **Status:** Consent Calendar

Title
Approval of a Resolution Authorizing Amendment 1 to the Agreed Order with the Washington State Department of Ecology for Remediation of the Former West Olympia Landfill Site

Recommended Action
Committee Recommendation:
Not referred to a committee.

City Manager Recommendation:
Move to approve the resolution authorizing Amendment 1 to the Agreed Order with the Washington State Department of Ecology for Remediation of the Former West Olympia Landfill Site and authorizing the Interim City Manager to sign the amendment and any other documents deemed necessary for remediation.

Report
Issue:
Whether to approve amending the Agreed Order with the State of Washington Department of Ecology for cleanup of the former West Olympia Landfill Site.

Staff Contact:
Donna Buxton, Groundwater Protection Program Manager, Public Works, 360.753.8793

Presenter(s):
None - Consent Calendar Item.

Background and Analysis:
On October 2, 2017, the City of Olympia and the State of Washington Department of Ecology (DOE) entered into an Agreed Order for remediation of the former West Olympia Landfill Site (Site). The Agreed Order requires the City to conduct a Remedial Investigation and Feasibility Study (RI/FS) of

the Site.

The Remedial Investigation of the Site is complete, and the Feasibility Study will be completed in April 2020. The next step in DOE's regulatory cleanup process (under the Model Toxics Control Act) is a draft Cleanup Action Plan. The proposed amendment to the Agreed Order requires the City to prepare a draft Cleanup Action Plan (dCAP) for the Site.

Neighborhood/Community Interests (if known):
Cleanup and development of the former West Olympia Landfill Site will remediate existing onsite environmental contamination and provide an economic development opportunity in West Olympia.

Options:

1. Authorize the Interim City Manager to sign Amendment 1 to the Agreed Order between the City of Olympia and the Washington State Department of Ecology for cleanup of the former West Olympia Landfill Site as well as any other documents the Interim City Manager deems necessary to fulfill the City's obligation to remediate the Site.

2. Authorize the Interim City Manager to sign Amendment 1 to the Agreed Order with modifications requested by Council.

3. Do not authorize the Interim City Manager to sign Amendment 1 to the Agreed Order and provide staff with guidance moving forward.

Financial Impact:
Funding for costs incurred by the Agreed Order (RI/FS) and Amendment 1 (dCAP) activities have been provided by the Economic Development Fund with reimbursement to the City from insurance policy carrier(s).

Attachments:
Resolution
Amendment 1 to Agreement Order

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OLYMPIA, WASHINGTON, APPROVING AMENDMENT 1 TO THE AGREED ORDER BETWEEN THE CITY OF OLYMPIA AND THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY FOR REMEDIATION OF THE FORMER WEST OLYMPIA LANDFILL SITE

WHEREAS, on October 2, 2017, the City of Olympia (City) and the State of Washington Department of Ecology (DOE) entered into an Agreed Order for remediation of the former West Olympia Landfill Site (Site); and

WHEREAS, the Agreed Order required the City to conduct a Remedial Investigation and Feasibility Study (RI/FS) of the Site; and

WHEREAS, the Remedial Investigation of the Site has been completed, and the Feasibility Study will be completed in April 2020; and

WHEREAS, the next step in DOE's Toxics Cleanup Program - Model Toxics Control Act is a draft Cleanup Action Plan (dCAP); and

WHEREAS, the City and DOE wish to amend the Agreed Order to incorporate the requirement of a draft Cleanup Action Plan for the Site;

NOW, THEREFORE, THE OLYMPIA CITY COUNCIL DOES HEREBY RESOLVE as follows:

1. The Olympia City Council hereby approves the form of Amendment 1 to the Agreed Order between the City of Olympia and the State of Washington Department of Ecology for remediation of the former West Olympia Landfill Site and the terms and conditions contained therein.

2. The Interim City Manager is authorized and directed to execute on behalf of the City of Olympia Amendment 1 to the Agreed Order, as well as any other documents that the Interim City Manager deems necessary to fulfill the City's obligations to remediate the former West Olympia Landfill Site, including but not limited to future amendments to the Agreed Order.

PASSED BY THE OLYMPIA CITY COUNCIL this _____day of _____ 2020.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
DEPUTY CITY ATTORNEY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by:	AMENDMENT 1 TO AGREED ORDER
The City of Olympia (Former West Olympia Landfill)	No. DE 13797

TO: The City of Olympia
City Hall
601 4th Avenue East
Olympia, Washington 98501

I. BACKGROUND

Agreed Order No. DE 13797 (Order) was entered into by the State of Washington, Department of Ecology (Ecology) and the City of Olympia on October 2, 2017. The site that is the subject of the Order is Former West Olympia Landfill generally located at 1305 Cooper Point Road SW in Olympia, Washington (Facility/Site ID 1425). The City of Olympia is referred to as "the PLP" in this Order amendment. This amendment to the original Order requires the PLP to draft a Draft Cleanup Action Plan. The original Order requires a remedial investigation and feasibility study to be completed. Ecology believes the actions required by this Amendment are in the public interest.

Those provisions of Agreed Order No. DE 13797 that are not specifically changed by this Amendment remain in full force and effect.

II. JURISDICTION

This Amendment to Agreed Order No. DE 13797 is issued pursuant to the authority of the Model Toxics Control Act (MTCA), RCW 70.105D.

III. AMENDMENT

Section VII. (Work to be Performed) of the Order is hereby amended to add paragraphs J and K as follows:

J. The PLP shall produce an agency review Draft Cleanup Action Plan (dCAP) in accordance with WAC 173-340-380 (1)(a) 90 days after the public review feasibility study has been accepted by Ecology. The public review remedial investigation was accepted by Ecology on December 20, 2019.

K. The PLP shall submit a public review dCAP, which shall incorporate revisions requested by Ecology on the agency review draft, within 45 days from receiving Ecology comments on the agency review dCAP. Ecology will make the necessary adjustments to the public review dCAP for compliance with WAC 173-340-380 (1)(a),

The Effective Date of this Amendment is the date signed by Ecology.

The CITY OF OLYMPIA	STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
Steven Jay Burney Date Interim Acting City Manager The City of Olympia City Hall 601 4th Avenue East Olympia, Washington 98501 APPROVED AS TO FORM: CITY ATTORNEY	Rebecca S. Lawson, P.E. Date Regional Section Manager Toxics Cleanup Program Southwest Regional Office (360) 407-6241

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of an Ordinance Enacting a New Chapter of the Olympia Municipal Code Regulating the Retail Sale of Dogs and Cats

Agenda Date: 2/25/2020
Agenda Item Number: 4.I
File Number:20-0129

Type: ordinance **Version:** 2 **Status:** 2d Reading-Consent

Title
Approval of an Ordinance Enacting a New Chapter of the Olympia Municipal Code Regulating the Retail Sale of Dogs and Cats

Recommended Action
Committee Recommendation:
Not referred to a committee.

City Manager Recommendation:
Approve the ordinance regulating the retail sale of dogs and cats on second reading.

Report
Issue:
Whether to enact an ordinance regulating the retail sale of dogs and cats and enacting a new chapter in the Olympia Municipal Code for said purposes.

Staff Contact:
Mark Barber, City Attorney, 360.753.8338

Presenter(s):
None - Consent Calendar Item.

Background and Analysis:
A change to the ordinance will close an identified loophole that thwarts the purpose of the proposed ordinance. The additional language proposed under Section 6.01.050 reads as follows:

> *No pet store, or its owner or legal entity operating a retail pet store, shall receive any compensation from pet adoptions or for the use of the store and its resources in connection with adoption events.*

This language seeks to ensure that pets adopted out to the public are truly from legitimate animal welfare/non-profit entities and that adoption fees are not in excess of that which is necessary to support animal welfare/non-profit organizations. The lack of compensation to retailers for hosting

adoption events may work to discourage the mass production of animals for financial gain, at least with respect to the profitable sale of such animals to the unsuspecting public in Olympia.

The cities of Olympia, Lacey, Tumwater and Thurston County incur significant costs operating and caring for the treatment of animals brought into Joint Animal Services (JAS), including food, supplies, drugs, medicine and chemical materials for the animals. Each year thousands of dogs and cats are euthanized because they are not wanted, many times due to surrender by pet owners. This Ordinance should reduce the number of unwanted animals brought to organizations like JAS that may have health or behavioral issues, which would also serve to reduce the financial burden on Olympia's taxpayers. Further, consumers may be more likely to adopt a dog or a cat if dogs and cats were not readily available for purchase in pet stores. Moreover, there is a large financial benefit to consumers who adopt animals, as the fee charged by JAS is in many cases significantly lower than the cost of purchasing a dog or cat from a pet store.

According to The Humane Society of the United States, hundreds of thousands of dogs and cats in the United States have been housed and bred at substandard breeding facilities known as "puppy mill" or "kitten factories," that mass produce animals for sale to the public; and many of these animals are sold at retail in pet stores. Because of the lack of proper animal husbandry practices these facilities, animals born and raised there are more likely to have genetic disorders and lack adequate socialization, while breeding animals utilized there are subject to inhumane housing conditions are indiscriminately disposed of when they reach the end of their profitable breeding cycle.

In the United States and Canada alone, over 40 cities have enacted ordinances addressing the sale of puppy and kitten mill dogs and cats, including Chicago, Illinois; Los Angeles, California; San Diego, California; Albuquerque, New Mexico; Austin, Texas; Brick, New Jersey; Poulsbo, Washington, and Toronto, Canada, to name but a few.

Neighborhood/Community Interests:
Citizens have expressed support during Public Comment for regulation of the retail sale of dogs and cats in Olympia.

Options:

1. Approve the proposed ordinance enacting a New Chapter to Title 6 of the Olympia Municipal Code regulating the retail sale of dogs and cats on second reading.
2. Direct staff to modify the proposed ordinance.
3. Do not enact the proposed ordinance.

Financial Impact:
No immediate impacts.

Attachments:
Ordinance

Ordinance No. _____

AN ORDINANCE OF THE CITY OF OLYMPIA, WASHINGTON, REGULATING THE RETAIL SALE OF DOGS AND CATS, AND ENACTING A NEW CHAPTER TO THE OLYMPIA MUNICIPAL CODE FOR SAID PURPOSE.

WHEREAS, pet stores selling live animals have traditionally been a sales outlet for young dogs and cats bred in "puppy mill" and "kitten mills" both within the United States and abroad. According to the Humane Society of the United States, it is estimated that 10,000 puppy mills produce more than 2,400,000 puppies a year in the United States and that most pet store puppies and many pet store kittens come from puppy mills and kitten mills, respectively. When consumers buy puppies and kittens from pet stores, there is a strong likelihood that consumers are unknowingly supporting the puppy mill or kitten mill industry; and

WHEREAS, the documented abuses of puppy and kitten mills include over-breeding; inbreeding; minimal to non-existent veterinary care; lack of adequate food, water and shelter; lack of socialization; lack of adequate space; and the euthanization of unwanted animals. The inhumane conditions in puppy and kitten mill facilities lead to health and behavioral issue with animals, which many consumers are unaware of when purchasing animals from retailers due to both a lack of education on the issue and misleading tactics of retailers in some cases. These health and behavioral issues, which may not present themselves until years after the purchase of the animals, can impose exorbitant financial and emotional costs on consumers; and

WHEREAS, the lack of enforcement resources at local, state and federal levels allow many inhumane puppy and kitten mills to operate with impunity. According to The Humane Society of the United States, American consumers purchase dogs and cats from pet stores that the consumers believe to be healthy and genetically sound, but in reality, the animals often face an array of health problems including communicable diseases or genetic disorders that present immediately after sale or that do not surface until several years later, all of which lead to costly veterinary bills and distress to the pet owners; and

WHEREAS, the cities of Olympia, Lacey, Tumwater and Thurston County incur significant costs operating and caring for the treatment of animals brought into Joint Animal Services (JAS), including food, supplies, drugs, medicine and chemical materials for said animals. Each year thousands of dogs and cats are euthanized because they are not wanted, many times due to surrenders by pet owners. This Ordinance should reduce the number of unwanted animals brought to organizations like JAS who may have health or behavioral issues, which would also serve to reduce the financial burden on Olympia's taxpayers. Further, consumers may be more likely to adopt a dog or a cat if dogs and cats were not readily available for purchase in pet stores. Moreover, there is a large financial benefit to consumers who adopt animals, as the fee charged by JAS is in many cases significantly lower than the cost of purchasing a dog or cat from a pet store; and

WHEREAS, a review of inspection reports by the State of California and the United States Department of Agriculture (USDA) from more than one hundred breeders who sold animals to the nation's largest retail pet store chain revealed that more than sixty percent (60%) of the inspections found serious violations of basic animal care standards, including sick or dead animals in their cages, lack of proper veterinary care, inadequate shelter from weather conditions, and dirty, unkempt cages that were too small; and

WHEREAS, according to The Humane Society of the United States, hundreds of thousands of dogs and cats in the United States have been housed and bred at substandard breeding facilities known as "puppy mill" or "kitten factories," that mass produce animals for sale to the public; and many of these animals are sold at retail in pet stores. Because of the lack of proper animal husbandry practices these facilities, animals born and raised there are more likely to have genetic disorders and lack adequate socialization, while breeding animals utilized there are subject to inhumane housing conditions are indiscriminately disposed of when they reach the end of their profitable breeding cycle; and

WHEREAS, according to USDA inspection reports, some additional documented problems found at puppy mills include (a) sanitation problems leading to infectious disease, (b) large numbers of animals overcrowded in cages; (c) lack of proper veterinary care for severe illnesses and injuries; (d) lack of protection from harsh weather conditions; and (e) lack of adequate food and water; and

WHEREAS, the homeless pet problem notwithstanding, there are many reputable dog and cat breeders who refuse to sell through pet stores and who work carefully to screen families and ensure good, lifelong matches; and

WHEREAS, responsible dog and cat breeders do not sell their animals to pet stores. The United Kennel Club (UKC), the second oldest all-breed registry of purebred dog pedigrees in the United States and the second largest in the world, asks all of its member breeders to agree to a Code of Ethics which includes a pledge not to sell their puppies to pet stores. Similar pledges are included in Codes of Ethics for many breed clubs for individual breeds; and

WHEREAS, across the country, thousands of independent pet stores as well as large chains operate profitably with a business model focused on the sale of pet services and supplies and not on the sale of dogs and cats. Many of these stores collaborate with local animal sheltering and rescue organizations to offer space and support for showcasing adoptable homeless pets on their premises; and

WHEREAS, the Olympia City Council recognizes that not all dogs and cats retailed in pet stores are products of inhumane breeding conditions and would not classify every commercial breeder selling dogs or cats to pet stores as a "puppy mill" or "kitten factory," it is the City Council's belief that puppy mills and kitten factories continue to exist in part because of public demand and the sale of dogs and cats in pet stores; and

WHEREAS, the Olympia City Council finds that the current state of retail sale of dogs and cats in pet stores in the City of Olympia is inconsistent with the City's goal to be a community that cares about animal welfare; and

WHEREAS, Olympia City Council believes that eliminating the retail sale of dogs and cats in pet stores in the City will promote community awareness of animal welfare and, in turn, will foster a more humane environment in the City; and

WHEREAS, the Olympia City Council also believes that elimination of the retail sale of dogs and cats in pet stores in the City will also encourage pet consumers to adopt dogs and cats from shelters, thereby saving animals' lives and reducing the cost to the public of sheltering animals; and

WHEREAS, this Ordinance will not affect a consumer's ability to obtain a dog or cat of his or her choice directly from a breeder, a breed-specific rescue or a shelter; and

WHEREAS, in the United States and Canada alone, over forty (40) cities have enacted ordinances addressing the sale of puppy and kitten mill dogs and cats, including Chicago, Illinois; Los Angeles,

California; San Diego, California; Albuquerque, New Mexico; Austin, Texas; Brick, New Jersey; Poulsbo, Washington, and Toronto, Canada, to name but a few; and

WHEREAS, current federal and state laws and City ordinances do not properly address the sale of puppy and kitten mill dogs and cats in City business establishments; and

WHEREAS, the Olympia City council believes it is in the best interests of the City to adopt reasonable regulations to reduce costs to the City and its residents, protect the citizens of the City who may purchase cats or dogs from a pet store or other business establishment, help prevent these inhumane conditions, promote community awareness of animal welfare, and foster a more humane environment in the City; and

WHEREAS, the Olympia City Council desires to adopt a new chapter to the Olympia Municipal Code to prohibit the retail sale of dogs and cats in the City of Olympia by adding the language shown below;

NOW, THEREFORE, THE OLYMPIA CITY COUNCIL ORDAINS AS FOLLOWS:

Section 1. Findings. The above recitals are incorporated herein by reference and made the findings of the Olympia City Council.

Section 2. Addition of New OMC Chapter 6.01. A new Chapter 6.01, Retail Sale of Dogs and Cats, is hereby added to the Olympia Municipal Code to read as follows:

Title 6
ANIMALS

Chapters:

Chapter 6.01
RETAIL SALE OF DOGS AND CATS

6.01.000 Chapter Contents

Sections:

6.01.010 Definitions

For purposes of this Chapter, the following definitions shall apply:

a. "Animal shelter" means a municipal or related public agency animal shelter devoted to the rescue, care and adoption of stray, abandoned or surrendered animals, and which does not breed animals.

b. "Dog" means an animal of the Canidae family of the order Carnivora.

c. "Cat" means an animal of the Felidae family of the order Carnivora.

d. "Certificate of source" shall mean a document declaring the source of the dog or cat sold or transferred by the pet store. The certificate shall include the name and address of the source of the dog or cat.

e. "Existing pet store" means any pet store or pet store operator that displayed, sold delivered, offered for sale, offered for adoption, bartered, auctioned, gave away, or otherwise transferred dogs or cats in the City of Olympia on the effective date of this Chapter, and complied with all applicable provisions of the Olympia Municipal Code.

f. "Pet store" means a retail establishment open to the public and engaging in the business of offering for sale and/or selling animals, including dogs and cats, at retail.

g. "Pet store operator" means a person or legal entity who owns or operates a retail pet store, or both.

h. "Rescue organization" means any nonprofit organization that has tax exempt status under Section 501(c)(3) of the United States Internal Revenue Code, whose mission and practice is, in whole or in significant part, the rescue and placement of dogs and cats.

6.01.020 Prohibition on Retail Sale of Dogs and Cats

Notwithstanding any provision in the Olympia Municipal Code to the contrary, no pet store shall display, sell, deliver, offer for sale, barter, auction, give away, or otherwise transfer or dispose of dogs or cats in the City of Olympia on or after the effective date of this Chapter.

6.01.030 Existing Pet Stores

An existing pet store may continue to display, offer for sale, offer for adoption, barter, auction, give away, or otherwise transfer dogs and cats until September 15, 2020.

6.10.040 Exemptions

This Chapter does not apply to:

a. A person or establishment that sells, delivers, offers for sale, barters, auctions, gives away, or otherwise transfers or disposes of animals that were bred and reared on the premises of the person or the retail establishment;

b. A publicly operated animal control facility or animal shelter;

c. A charitable, nonprofit animal humane society or animal rescue organization which does not acquire or sell dogs and cats for profit;

d. A publicly operated animal control agency, nonprofit humane society, or nonprofit animal rescue organization that operates out of or in connection with a pet store.

6.01.050 Adoption of Shelter and Rescue Animals

Nothing in this Chapter shall prevent a pet store or its owner or legal entity or employees from providing space and appropriate care for animals owned by a publicly operated animal control agency, nonprofit humane society, or nonprofit animal rescue organization and maintained at the pet store for the purpose of adopting those animals to the public. No pet store, or its owner or legal entity operating a retail pet store, shall receive any compensation from pet adoptions or for the use of the store and its resources in connection with adoption events.

~~**Exceptions:**~~

~~**(1) No retail**~~

6.01.060 Record Keeping and Disclosure

A pet store shall maintain records stating the name and address of the publicly operated animal shelter, nonprofit animal humane society or animal rescue organization that each dog and cat was obtained from for at least three (3) years following the date of acquisition. Such records shall be made available upon request to a City code enforcement officer or animal control authority. Each pet shop shall display on each cage or pen containing a dog or cat, a label stating the certificate of source, including the name and address of the animal shelter or nonprofit humane society or animal rescue organization which is the source for each dog or cat kept in the cage or pen.

6.01.070 Right of Entry for Inspection and Enforcement

The City retains all rights of entry into any pet store as allowed by any law, code, constitutional provision, common law, or any other legal authority for purposes of inspection and enforcement of the provisions of this Chapter.

6.01.080 Violations

It shall be a civil infraction for any person or corporation to violate or fail to comply with any of the provisions of this Chapter. Each day shall be a separate infraction. A person or corporation found to have committed a civil infraction shall be assessed a monetary penalty as follows:

a. First offense: Class 3 ($50), not including statutory assessments.

b. Second offense arising out of the same facts as the first offense: Class 2 ($125), not including statutory assessments.

c. Third offense arising out of the same facts as the first offense and all further offenses arising out of the same facts as the first offense: Class 1 ($250), not including statutory assessments.

6.01.090 Abatement of Nuisance

The City retains the right to enforce the provisions of this Chapter in superior court by any and all legal means in its sole discretion, including but not limited to pursuing abatement of any nuisance through injunctive relief and warrant of abatement.

Section 2. Corrections. The City Clerk and codifiers of this Ordinance are authorized to make necessary corrections to this Ordinance, including the correction of scrivener/clerical errors, references, ordinance numbering, section/subsection numbers and any references thereto.

Section 3. Severability. If any provision of this Ordinance or its application to any person or circumstance is held invalid, the remainder of the Ordinance or application of the provisions to other persons or circumstances shall remain unaffected.

Section 4. Ratification. Any act consistent with the authority and prior to the effective date of this Ordinance is hereby ratified and affirmed.

Section 5. Effective Date. This Ordinance shall take effect thirty (30) days after publication, as provided by law.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
DEPUTY CITY ATTORNEY

PASSED:

APPROVED:

PUBLISHED:

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Approval of an Ordinance Amending Title 4 of the Olympia Municipal Code Relating to Residential Parking Fees

Agenda Date: 2/25/2020
Agenda Item Number: 4.J
File Number:20-0170

Type: ordinance **Version:** 1 **Status:** 1st Reading-Consent

Title
Approval of an Ordinance Amending Title 4 of the Olympia Municipal Code Relating to Residential Parking Fees

Recommended Action
Committee Recommendation:
Land Use and Environment Committee recommends the proposed changes.

City Manager Recommendation:
Move to approve the ordinance amending Olympia Municipal Code Title 4 related to residential parking fees on first reading and forward to second reading.

Report
Issue:
Whether to approve the ordinance amending Olympia Municipal Code Title 4 related to residential parking fees.

Staff Contact:
Max DeJarnatt, Parking Program Analyst, Community Planning & Development, 360.570.3723.

Presenter(s):
None - Consent Calendar Item.

Background and Analysis:
On February 4, the City Council approved an ordinance amending 10.16 and 10.20 relating to parking. As a result, and in an effort to consolidate fee information, the amended residential permit section OMC 10.16.055 refers readers to parking rates as set out in Fees Title 4, Section 70, effective March 9.

In reports provided to the Land Use and Environment Committee (at the Feb. 21, 2019, meeting) and City Council (at the Sept. 24, 2019, meeting), staff recommended an increase of residential parking fees within zones bounded by the Downtown Planning area from $10 per vehicle per year to $60 per vehicle per year. This ordinance finalizes the permit fee increase. This is the first time that residential

parking permit fees have been increased since 2005.

From the Parking Strategy, adopted by the City Council in April 2019:

> ***5.4: Increase the price of on-street residential and 9-hour meter permits to incentivize the use of off-street parking options. On-street permit costs should be consistent with hourly and daily rates.***
> *Increasing the cost of permits for on-street parking will encourage the use of off-street alternatives, which is a more appropriate location for long-term parking. The on-street permits for residents are currently $10 annually and the on-street permits for employees are currently $60 per month. These prices are not conducive to incentivizing alternative parking in some of the available off-street facilities.*

At the beginning of 2020, the City increased parking meter and monthly on- and off-street parking permit rates. With residential permits at $10 per year, the City has incentivized long-term, on-street parking in the midst of rapidly increasing demand for on-street parking. The proposed increase represents the first phase towards a demand-based fee structure that more accurately represents the value of these parking stalls.

These increases were first recommended by the Land Use and Environment Committee (LUEC) in 2018; however, they were tabled due to evolving discussions with the South Capitol Neighborhood, whose zones 1, 2, and 3 were included in the original proposal. Those zones, in addition to the residential zone east of the Downtown Planning Boundary (Zone 6), are not included in these recommended increases but will instead be brought to the LUEC in April of this year.

Neighborhood/Community Interests (if known):
This impacts residents who store their car at metered or timed areas within the Downtown planning zone. The Downtown Neighborhood Association was briefed on these increases in November 2018 and January 2020.

Options:
1. Approve ordinance amending Residential Parking Fees to Title 4 on first reading and forward to second reading.
2. Modify ordinance amending Residential Parking Fees to Title 4.
3. Do not approve the ordinance.

Financial Impact:
Fee increases represent an estimated $32,000 in additional Parking Fund dollars.

Attachments:
Ordinance
Residential Parking Zone Map
Parking Permits 2007-2019

Ordinance No. _____

AN ORDINANCE OF THE CITY OF OLYMPIA, WASHINGTON, AMENDING TITLE 4 OF THE OLYMPIA MUNICIPAL CODE RELATING TO RESIDENTIAL PARKING FEES.

WHEREAS, in April 2019, the City of Olympia adopted a Downtown Olympia Parking Strategy for the years 2019-2029 (the Parking Strategy) with the intent of supporting the Downtown Strategy by ensuring citizens have safe, predictable parking; and

WHEREAS, by separate ordinance, staff has proposed amendments to Olympia Municipal Code (OMC) Chapters 10.16 and 10.20 (the Parking Code), which support the City's goals, strategies, and implementation timelines for parking in Downtown Olympia; and

WHEREAS, in conjunction with the Parking Code amendments, staff has proposed moving the fees for the Residential Parking Program to OMC Title 4, Fees and Fines; and

WHEREAS, this Ordinance is supported by the staff report and accompanying materials concerning the Ordinance on file with the City;

NOW, THEREFORE, THE OLYMPIA CITY COUNCIL ORDAINS AS FOLLOWS:

Section 1. Amendment of OMC Title 4. Olympia Municipal Code Section 4.00.000 is hereby amended to read as follows:

4.00.000 Title Contents

Title 4
FEES AND FINES

Chapters:

Section 2. Amendment of OMC Title 4. Title 4 of the Olympia Municipal Code is here amended by adding a New Chapter 4.70, Residential Parking Fees, to read as follows:

Chapter 4.70
RESIDENTIAL PARKING FEES

4.70.000 Chapter Contents

Sections:

4.70.010 Residential parking fees.

4.70.010 Residential parking fees.

Vehicle registration fees for the Residential Parking Program described in OMC 10.16.055 are set for each zone as follows:

A. Ten dollars ($10.00) per year, per vehicle registered in the program for Zones 1, 2, 3, and 6.

B. Sixty dollars ($60.00) per year, per vehicle registered in the program for Zones 4, 5, 7, and 8.

Section 3. Corrections. The City Clerk and codifiers of this Ordinance are authorized to make necessary corrections to this Ordinance, including the correction of scrivener/clerical errors, references, ordinance numbering, section/subsection numbers and any references thereto.

Section 4. Severability. If any provision of this Ordinance or its application to any person or circumstance is held invalid, the remainder of the Ordinance or application of the provisions to other persons or circumstances shall remain unaffected.

Section 5. Ratification. Any act consistent with the authority and prior to the effective date of this Ordinance is hereby ratified and affirmed.

Section 6. Effective Date. This Ordinance shall take effect five (5) days after publication, as provided by law.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

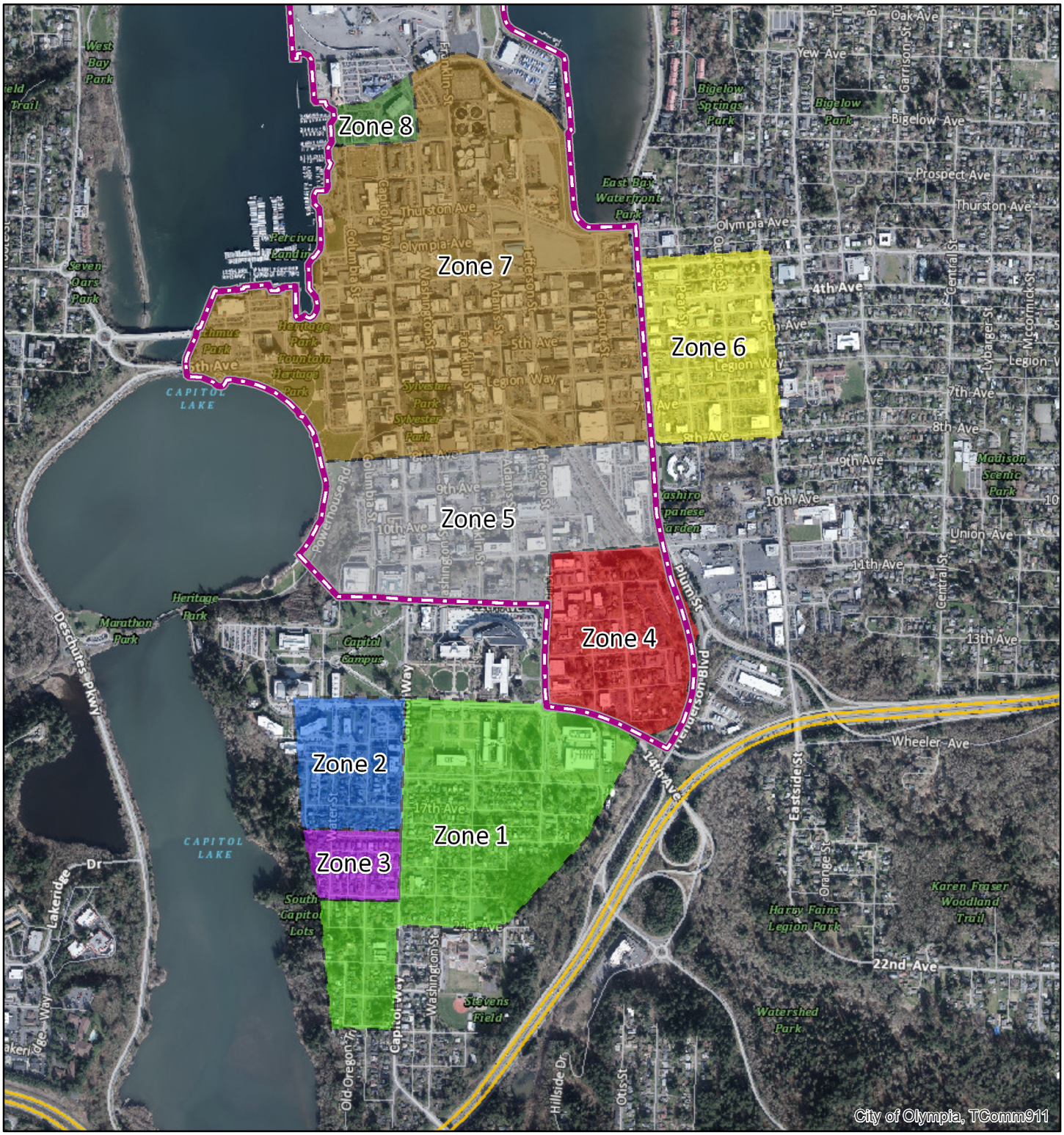
_____
DEPUTY CITY ATTORNEY

PASSED:

APPROVED:

PUBLISHED:

Residential Parking Zones



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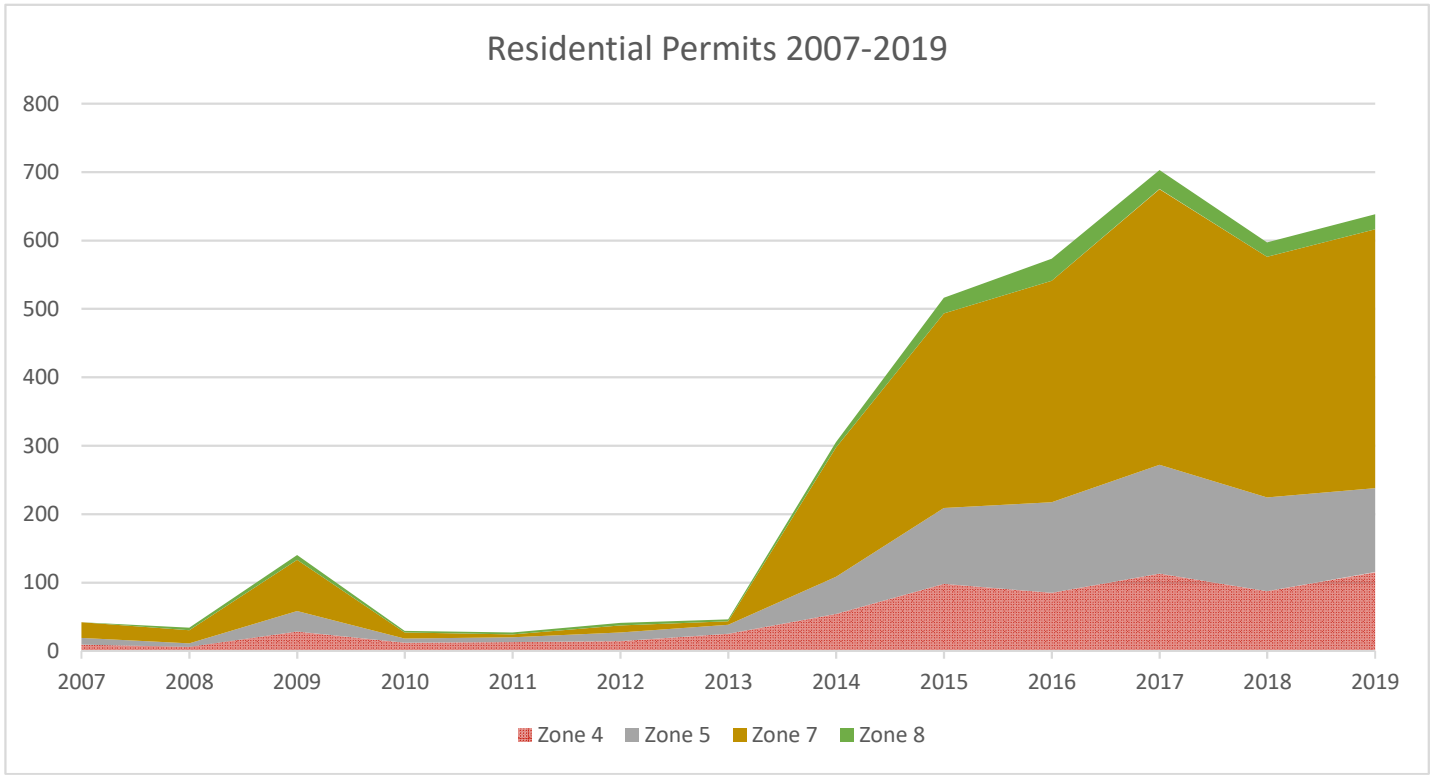
Downtown Planning Area

Parking Zones

1
2
3
4
5
6
7
8

0 0.125 0.25 0.5 mi

0 0.2 0.4 0.8 km


Residential Permits 2007-2019
800
700
600
500
400
300
200
100
0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Zone 4
Zone 5
Zone 7
Zone 8

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Public Hearing on a Development Agreement with Low-Income Housing Institute for 2828 Martin Way

Agenda Date: 2/25/2020
Agenda Item Number: 5.A
File Number:20-0182

Type: public hearing **Version:** 1 **Status:** Public Hearing

Title
Public Hearing on a Development Agreement with Low-Income Housing Institute for 2828 Martin Way

Recommended Action
Committee Recommendation:
Not referred to a committee.

City Manager Recommendation:
Hold a public hearing on a development agreement with the Low-Income Housing Institute. After closing the public hearing, move to adopt the attached resolution approving a development agreement with the Low-Income Housing Institute for residential development to serve low-income individuals at 2828 Martin Way.

Report
Issue:
Whether the City Council should hold a public hearing and approve a development agreement with the Low-Income Housing Institute.

Staff Contact:
Leonard Bauer, Interim Director, Community Planning and Development, 360.753.8206

Presenter(s):
Leonard Bauer, Interim Director, Community Planning and Development

Background and Analysis:
This development agreement is requested by City staff in accordance with Chapter 18.53 of the Olympia Municipal Code. Staff from the Departments of Community Planning and Development and Public Works have worked with the Low-Income Housing Institute (LIHI) and the City Attorney's office to draft the proposed development agreement (see attached).

The development agreement is for a 1.12-acre property located at 2828 Martin Way, on the northwest corner of Martin Way and Pattison Street NE (tax parcel no. 69510000200). The property was purchased by the City of Olympia using its Home Fund and is being sold to LIHI to construct (in two

phases) approximately 111 units of housing affordable to low-income residents, and a shelter for approximately 60 individuals experiencing homelessness. A purchase and sale agreement has been signed with LIHI for the sale of the property.

The proposed agreement provides that LIHI will apply for the development of the property in two phases, and each application will be reviewed for consistency with the City's adopted development regulations at the time of the execution of this agreement.
The development agreement will be recorded with the property and remain in effect for this property even if it is subsequently sold to another party.

This public hearing and decision are on the terms of the proposed development agreement with LIHI for the subject property. This Public Hearing is not a hearing or decision on the proposed development itself. Consideration of proposed development on the property will occur in the future as part of the review of permit applications after they are received by the City.

Legal Requirements for Development Agreements
Chapter 36.70B.170 of the Revised Code of Washington authorizes cities to enter into a written development agreement with a property owner. The City of Olympia's procedures for development agreements are contained in Chapter 18.53 of the Olympia Municipal Code (OMC).

Following is a brief summary of those procedures as they relate to the proposed development agreement:

- The City Council is the authority to make a final decision on a development agreement.
- The City Council must hold a public hearing on the development agreement. Notice was provided for tonight's hearing consistent with the City's public notice requirements (OMC 18.78.040).
- A development agreement must be heard by the City Council prior to consideration of any application for development.
- A development agreement may address the development standards and other provisions that apply to the proposed development and vest to the development, the time frame of the agreement, and any mitigation measures to address potential impacts of the agreement. The attached development agreement would not change any existing city regulations as they would apply to the development, but would ensure that current regulations apply to all phases of the development. The agreement includes exceptions for future state or federal regulations that may supersede the city's authority, and for new regulations addressing threats to public health and safety. The term of the draft agreement is ten years.
- Development agreements are recorded with Thurston County and remain in force and applicable to the property according to the terms of the agreement, even if the property is sold or transferred to another party.

Neighborhood/Community Interests (if known):
There is significant interest from throughout the community in providing housing affordable to low-income individuals, as evidenced by voter approval of the Olympia Home Fund. There was interest from the surrounding neighborhood when the City originally purchased the 2828 Martin Way property using the Home Fund.

Type: public hearing **Version:** 1 **Status:** Public Hearing

Options:
Following the close of the public hearing:

1. Approve the resolution approving the development agreement.
2. Do not approve the resolution.
3. Continue consideration of the resolution until a future Council meeting.

Financial Impact:
The development agreement itself does not have direct financial impact to the City. The associated sale of the property to LIHI is for $1,000, for provision of low-income housing in perpetuity. The proposed development is being partially funded by the City of Olympia Home Fund. The construction of additional housing units affordable to low-income individuals will benefit those individuals and potentially help the City avoid additional costs for services to individuals that may otherwise experience homelessness.

Attachments:
Resolution
Development Agreement

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OLYMPIA, WASHINGTON, APPROVING A DEVELOPMENT BY AND BETWEEN THE CITY OF OLYMPIA AND THE LOW-INCOME HOUSING INSTITUTE FOR DEVELOPMENT OF CERTAIN REAL PROPERTY

WHEREAS, RCW 36.70B.170(1) authorizes the execution of a development agreement between a local government and a person or entity having ownership or control of real property within its jurisdiction; and

WHEREAS, a development agreement made pursuant to that authority must set forth the development standards and other provisions that shall apply to, govern, and vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement; and

WHEREAS, the City of Olympia (City) and the Low-Income Housing Institute (LIHI) have negotiated terms and conditions for the development of real property commonly known as Martin Way Affordable Housing, which consists of property located at 2828 Martin Way East (the Property); and

WHEREAS, LIHI intends to provide on the Property approximately 111 units of housing affordable to low-income residents and a shelter for approximately 60 individuals experiencing homelessness, which will provide a public benefit to the Olympia community; and

WHEREAS, pursuant to RCW 36.70B.200, the Olympia City Council held a public hearing on February 25, 2020, and considered testimony from the public and City staff on the proposed Development Agreement between the City and LIHI; and

WHEREAS, the Development Agreement adopted by this Resolution meets the requirements of RCW Chapter 36.70B and OMC Chapter 18.56 and is consistent with applicable development regulations; and

WHEREAS, the City reserves its authority to impose new or different regulations to the extent required by a serious threat to public health and safety; and

WHEREAS, the Olympia City Council deems it to be in the best interest of the City of Olympia to enter into a Development Agreement with LIHI for the development of affordable housing and facilities providing housing-related services as provided in RCW 82.14.530;

NOW, THEREFORE, THE OLYMPIA CITY COUNCIL DOES HEREBY RESOLVE as follows:

1. The Olympia City Council hereby approves the Development Agreement between the City of Olympia and the Low-Income Housing Institute for Development of Certain Real Property and the terms and conditions contained therein.

2. The Interim City Manager is authorized and directed to execute on behalf of the City of Olympia the Development Agreement between the City of Olympia and the Low-Income Housing Institute for Development of Certain Real Property, and any other documents necessary to execute said Agreement, and to make any minor modifications as may be required and are consistent with the intent of the Agreement, or to correct any scrivener's errors.

PASSED BY THE OLYMPIA CITY COUNCIL this _____day of _____ 2020.

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
DEPUTY CITY ATTORNEY

DEVELOPMENT AGREEMENT
BY AND BETWEEN THE CITY OF OLYMPIA, A WASHINGTON MUNICIPAL CORPORATION, AND THE LOW-INCOME HOUSING INSTITUTE, A WASHINGTON NONPROFIT CORPORATION, FOR DEVELOPMENT OF CERTAIN REAL PROPERTY

THIS DEVELOPMENT AGREEMENT is effective as of the date of the last authorizing signature affixed hereto. The parties to this Agreement are the City of Olympia, a Washington municipal corporation, hereinafter the "City," and the Low-Income Housing Institute (LIHI), a non-profit corporation organized under the laws of the State of Washington, hereinafter the "Developer."

RECITALS

1. The Washington State Legislature has authorized the execution of a development agreement between a local government and a person or entity having ownership or control of real property within its jurisdiction pursuant to RCW 36.70B.170(1)).

2. A development agreement made pursuant to that authority must set forth the development standards and other provisions that shall apply to, govern, and vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement.

3. The City and the Developer recognize development agreements must be consistent with the applicable development regulations adopted by a local government planning under chapter 36.70A RCW.

4. This Development Agreement, hereinafter the "Development Agreement", which will be by and between the City of Olympia and the Developer, relates to the development of real property commonly known as Martin Way Affordable Housing, which consists of property located at 2828 Martin Way East (hereinafter the "Property").

5. The Developer intends to provide on the Property approximately 111 units of housing affordable to low-income residents, and a shelter for approximately sixty (60) individuals experiencing homelessness, which will provide a public benefit to the Olympia community.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

GENERAL PROVISIONS

Section 1: ***The Project.*** The Project is the development and use of the Property, consisting of approximately 1.12 acres (Tax Parcel No. 69510000200) in the City of Olympia. The proposal describes the Project as a phased residential project, consisting of approximately 111 units of housing affordable to low-income residents, and a shelter for approximately sixty (60) individuals experiencing homelessness. It is anticipated that the Developer will be seeking approval, for each phase of the development, of a land use development application and associated building and other permits upon execution of this Development Agreement.

Section 2: ***The Subject Property.*** The Project site is legally described in Exhibit A, attached hereto and incorporated herein by this reference.

Section 3: ***Definitions.*** As used in this Development Agreement, the following terms, phrases and words shall have the meanings and be interpreted as set forth in this Section.

"Adopting Resolution" means the Resolution which approves this Development Agreement, pursuant to RCW 36.70B.200.

"Certificate of occupancy" means either a certificate issued after inspections by the City authorizing a person(s) in possession of property to dwell or otherwise use a specified building or dwelling unit, or the final inspection if a formal certificate is not issued.

"Council" means the duly elected legislative body governing the City of Olympia.

"Director" means the City's Community Planning and Development Director.

"Effective Date" means the effective date of the Adopting Resolution.

"EDDS" means the Engineering Design and Development Standards" adopted by the City of Olympia. See OMC 12.02.020.

"Existing Land Use Regulations" means the ordinances adopted by the City Council of Olympia in effect on the Effective Date, including the adopting ordinances that govern the permitted uses of land, the density and intensity of use, and the design, improvement, construction standards, and specifications applicable to the development of the Subject Property, including, but not limited to the Comprehensive Plan, the City's Official Zoning Map and development standards, Determinations made pursuant to the State Environmental Policy Act (SEPA), Concurrency Ordinance, the EDDS, and all other ordinances, codes, rules, and regulations of the City establishing standards in relation to the development of the subject property; and the division of land, whether through the subdivision process, the binding site plan process, or otherwise. This does not include any building or fire code that is state-mandated (See RCW 19.27.031); any other regulations resulting from superseding state or federal law; impact fees, mitigation fees, or any other fees or charges, except as specifically described in this agreement.

"Landowner" is the party who has acquired any portion of the Subject Property from the Developer who, unless otherwise released as provided in this Agreement, shall be subject to the applicable provisions of this Agreement. The "Developer" is the Low-Income Housing Institute (LIHI).

"Project" means the anticipated development of the Subject Property, as specified in Section 1 and as provided for in all associated permits/approvals, and all incorporated exhibits.

Section 4: ***Exhibits.*** Exhibits to this Agreement are as follows:

Exhibit A – Legal description of the Subject Property.

Exhibit B – Illustration showing Development Phases, including design of improvements. This Development Agreement does not certify or pre-approve Exhibit B for land use review or any other permits.

Exhibit C – Drawings showing cross-sections and street frontage improvement standards to the Pattison Street NE and Martin Way East right of way adjacent to the Project, which will be constructed by the Developer as described in this Development Agreement and conveyed to the City. The sheet titled "Pattison Street NE Frontage Improvements" shows curb and channelization on Pattison Street NE from the recently completed intersection improvements for both future phases.

Section 5: ***Parties to Development Agreement.*** The parties to this Agreement are:

The "City" is the City of Olympia, the mailing address of which is P. O. Box 1967, Olympia, Washington 98507.

As indicated above, the "Developer" is a non-profit corporation whose mailing address is 2407 First Avenue, Seattle, WA 98121.

The "Landowner." From time to time, as provided in this Agreement, the Subject Property or a portion thereof may be sold or otherwise lawfully disposed of to a Landowner who, unless otherwise released, shall be subject to the applicable provisions of this Agreement related to such portion of the Subject Property.

Section 6: ***Term of Agreement.*** This Agreement shall commence upon the effective date of the Adopting Resolution approving this Agreement and shall continue in force for a period of ten (10) years, unless extended or terminated as provided herein. Following the expiration of the term or any extension thereof, or if sooner terminated, this Agreement shall have no force and effect, subject however, to post-termination obligations of the Developer or Landowner.

Section 7: ***Vested Rights of Developer; Uses and Standards & Phasing.*** During the term of this Agreement, unless sooner terminated in accordance with the terms hereof, in developing the Subject Property consistent with the Project described herein, Developer is assured, and the City agrees, that the development rights, obligations, terms and conditions specified in this Agreement, are fully vested in the Developer under the existing land use regulations and may not be changed or modified by the City, except as may be expressly permitted by, and in accordance with, the terms and conditions of this Agreement, including the Exhibits hereto, or as expressly consented thereto by the Developer.

7.1 Whether developed in one phase or a series of phases as anticipated by Section 11, the following uses and standards shall be those in effect as of the date of this Agreement, whether set forth in this Agreement, or in the permits and approvals, if any, identified herein, and all exhibits incorporated herein: (a) the permitted uses, (b) the density and intensity of use, (c) the maximum height and size of proposed buildings, (d) provisions for reservation and dedication of land, and (e) the existing Land Use Regulations as defined in this Agreement, as applicable to the development of the Subject Property. This does not include any building or fire code that is state-mandated (See RCW 19.27.031); any other regulations resulting from superseding state or federal law impact fees; mitigation fees, or any other fees or charges, except as specifically described in this agreement.

7.2 It is the intent of this Agreement that the Developer shall take all actions necessary to extinguish the existing condominium division on the Subject Property prior to the time of demolition of the existing building by the Developer.

Section 8: ***Modifications.*** Any modifications from the approved permits or the exhibits attached hereto requested by Developer may be approved in accordance with the provisions of the City's code and under the existing Land Use Regulations and shall not require an amendment to this Agreement.

Section 9: ***Financing of Public Facilities.***

Developer acknowledges and agrees that it shall participate in the funding of its pro-rata share of the costs of public improvements in accordance with the city code and under the existing Land Use Regulations.

Section 10: ***Land Use Development Application Fees and Impact Fees.***

Land use fees and impact fees adopted by the City by ordinance as of the Effective Date of this Agreement may be increased by the City, and applicable to permits and approvals for the Subject Property, as long as such fees apply to similar applications and projects in the City. All impact fees shall be paid as set forth in the approved permit or approval, or as addressed in the Olympia Municipal Code.

Section 11: ***Phasing of Development.*** The parties acknowledge that, because the Development will be phased, certain improvements associated with the Project must be available to all phases of the Project, in order to address health, safety and welfare of the residents. Therefore, the parties agree that the improvements associated with the Project shall be constructed and developed in phases as described in this Agreement and set forth in its Exhibits, subject to approval through the City's land use review process.

Section 12: ***Improvement of Public Lands.*** Rights-Of-Way shall be improved and, if necessary, dedicated to the City as required in the permits/approvals for each phase of the development, consistent with this Agreement and as set forth in its Exhibits. No certificate of occupancy shall be issued for any building until all frontage improvements are installed by the Developer in accordance with this Development Agreement and accepted by the City. Issuance of a certificate of occupancy for any building and/or improvements to the property during Phase 1 shall not rely upon the undertaking or completion of Phase 2 frontage improvements.

Section 13: ***Default.*** Subject to extensions of time by mutual consent in writing, failure or delay by either party or Landowner not released from this Agreement to perform any term or provision of this Agreement shall constitute a default. In the event of alleged default or breach of any terms or conditions of this Agreement, the party alleging such default or breach shall give the other party or Landowner not less than thirty (30) days notice in writing, specifying the nature of the alleged default and the manner in which said default may be cured. During this thirty (30) day period, the party or Landowner charged shall not be considered in default for purposes of termination or institution of legal proceedings.

After notice and expiration of the thirty (30) day period, if such default has not been cured or is not being diligently cured in the manner set forth in the notice, the other party or Landowner to this Agreement may, at its option, institute legal proceedings pursuant to this Agreement. In addition, the City may decide to file an action to enforce the City's Codes, and to obtain penalties and costs as provided in the Olympia Municipal Code or state law for violations of this Development Agreement and the Code.

Section 14: ***Waiver of Local Improvement District (LID).*** Developer, property owner and all of their successors, heirs, or assigns of any type or character to the property waive objection, waive protest and agree to support the imposition on all or part of the property subject to this Agreement to construct the improvements listed in this Agreement if the public improvements are not constructed as set forth in this Agreement. This section survives the term of this Agreement and is perpetual.

After full completion of the public improvements and applicable bonds, the Public Works Director or designee is authorized to acknowledge that the public improvements have been fully constructed and have satisfactorily survived the time required by applicable bonds and therefore this waiver of LID in section 14 is prospectively no longer in effect after the acknowledgment by the Public Works Director.

Section 15. *Termination.* This Agreement shall expire and/or terminate as provided below:

15.1. This Agreement shall automatically expire and be of no further force and effect if the development contemplated in this Agreement and all of the permits and/or approvals issued by the City for such development are not substantially underway prior to expiration of such permits and/or approvals. Such expiration shall require no Council action. Nothing in this Agreement shall extend the expiration date of any permit or approval issued by the City for any development.

15.2. This Agreement shall expire and be of no further force and effect if the Developer does not construct the Project substantially as contemplated by the design documents identified in this Agreement, or if Developer submits applications for development of the Property that are inconsistent with such permits, approvals and with this Agreement.

15.3. This Agreement shall terminate upon the expiration of the term identified in Section 6 or when the Subject Property has been fully developed, whichever first occurs, and all of the Developer's obligations in connection therewith are satisfied as determined by the City. Upon termination of this Agreement, the City shall record a notice of such termination in a form satisfactory to the City Attorney that the Agreement has been terminated.

15.4. If not earlier terminated, this Agreement shall terminate as provided upon the passage of the time periods set forth in Section 6 without Council action.

Section 16: ***Effect upon Termination on Developer Obligations.*** Termination of this Agreement as to the Developer of the Subject Property or any portion thereof shall not affect any of the Developer's obligations to comply with the City of Olympia Comprehensive Plan and its terms and conditions or any applicable zoning code(s) or subdivision map or other land use entitlements approved with respect to the Subject Property, any other conditions of any other development specified in the Agreement to continue after the termination of this Agreement or obligations to pay assessments, liens, fees or taxes.

Section 17: ***Effects of Termination on City.*** Upon any termination of this Agreement as to the Developer of the Subject Property, or any portion thereof, the entitlements, conditions of development, limitations on fees and all other terms and conditions of this Agreement shall no longer be vested hereby with respect to the property affected by such termination.

Section 18: ***Assignment and Assumption.*** The Developer shall have the right to sell, assign, or transfer this Agreement with all their rights, title, and interests therein to any person, firm or corporation at any time during the term of this Agreement.

Section 19: ***Covenants Running with the Land***. The conditions and covenants set forth in this Agreement and incorporated herein by the Exhibits shall run with the land and the benefits and burdens shall bind and inure to the benefit of the parties. The Developer, Landowner and every purchaser, assignee or transferee of an interest in the Subject Property, or any portion thereof, shall be obligated and bound by the terms and conditions of this Agreement, and shall be the beneficiary thereof and a party thereto, but only with respect to the Subject Property, or such portion thereof, sold, assigned or transferred to it. Any such purchaser, assignee or transferee shall observe and fully perform all of the duties and obligations of a Developer contained in this Agreement, as such duties and obligations pertain to the portion of the Subject Property sold, assigned or transferred to it.

Section 20: ***Amendment to Agreement; Effect of Agreement on Future Actions.***

20.1. This Agreement may be amended by mutual written consent of all of the parties, provided that any such amendment shall follow the process established by law for the adoption of a development agreement.

20.2. Nothing in this Agreement shall prevent the City Council from making any amendment to its Comprehensive Plan, Zoning Code, Official Zoning Map or development regulations affecting the Subject Property during term of this Agreement to the extent required by a serious threat to public health and safety, or as a result of superseding state or federal law.

20.3. So long as mutually agreed upon, nothing in this Development Agreement shall prevent the City Council from making any amendments of any type to the Comprehensive Plan, Zoning Code, Official Zoning Map or development regulations relating to the Subject Property upon bases other than those set out in 20.2. In the absence of such mutual agreement by the Parties, any such amendment may not become effective earlier than the termination date of this Agreement.

Section 21: ***Releases.*** Developer, and any subsequent Landowner, may free itself from further obligations relating to the sold, assigned, or transferred property, provided that the buyer, assignee or transferee expressly assumes the obligations under this Agreement as provided herein.

Section 22: ***Notices.*** Notices, demands, correspondence to the City and Developer shall be sufficiently given if dispatched by pre-paid first-class mail to the addresses of the parties as designated in Section 5. Notice to the City shall be to the attention of both the City Manager and the Director of Community Planning and Development. Notices to subsequent Landowners shall be required to be given by the City only for those Landowners who have given the City written notice of their address for such

notice. The parties hereto may, from time to time, advise the other of new addresses for such notices, demands or correspondence.

Section 23: ***Applicable Law and Attorneys' Fees.*** This Agreement shall be construed and enforced in accordance with the laws of the State of Washington. Venue for any action shall lie in Thurston Superior Court or the U.S. District Court for Western Washington in Tacoma.

Section 24: ***Third Party Legal Challenge.*** In the event any legal action or special proceeding is commenced by any person or entity other than a party or a Landowner to challenge this Agreement or any provision herein, the City and the Developer will each bear their own cost of defense and all expenses incurred in the defense of such actions, including but not limited to, attorneys' fees and expenses of litigation, and damages awarded to the prevailing party or parties in such litigation.

Section 25: ***Specific Performance.*** The parties specifically agree that damages are not an adequate remedy for breach of this Agreement, and that the parties are entitled to compel specific performance of all material terms of this Development Agreement by any party in default hereof.

Section 26: ***Severability.*** If any phrase, provision or section of this Agreement is determined by a court of competent jurisdiction to be invalid or unenforceable, or if any provision of this Agreement is rendered invalid or unenforceable according to the terms of any statute of the State of Washington which became effective after the effective date of the Resolution adopting this Development Agreement, and either party in good faith determines that such provision or provisions are material to its entering into this Agreement, that party may elect to terminate this Agreement as to all of its obligations remaining unperformed.

IN WITNESS WHEREOF, the parties hereto have caused this Development Agreement to be executed as of the dates set forth below:

LOW-INCOME HOUSING INSTITUTE (LIHI):

By _____
Sharon Lee, Executive Director
Date: 2/14/2020

CITY OF OLYMPIA:

By _____
Steven J. Burney, Interim City Manager
Date: _____

APPROVED AS TO FORM:

By _____
City Attorney

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

On the ____ day of _____ 2020, before me, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared STEVEN J. BURNEY, to me known to be the Interim City Manager of the CITY OF OLYMPIA, a municipal corporation, who executed the foregoing instrument and acknowledged the 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 states that he is authorized to execute said instrument.

WITNESS my hand and official seal the day and year first above written.

_____
Signature
Print Name: _____
NOTARY PUBLIC in and for the State of Washington, residing at _____
My commission expires _____

STATE OF WASHINGTON)
) ss.
COUNTY OF King)

On the 14th day of February 2020, before me, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Sharon Lee, to me known to be the Executive Director of the Low Income Housing Institute, a Washington non-profit corporation, who executed the foregoing instrument and acknowledged the said instrument to be the free and voluntary act and deed of said non-profit corporation for the uses and purposes therein mentioned and on oath states that she is authorized to execute said instrument.

WITNESS my hand and official seal the day and year first above written.

AARON D LONG NOTARY PUBLIC COMMISSION EXPIRES 6-19-22 STATE OF WASHINGTON

Aaron D. Long
Signature
Print Name: Aaron D. Long
NOTARY PUBLIC in and for the State of Washington, residing at Seattle
My commission expires 6/19/22

EXHIBIT "A"

UNIT A AND UNIT B OF AMENDED PLAT OF PRO-ARTS CONDOMINIUM, PHASE ONE, ACCORDING TO THE AMENDED PLAT RECORDED JANUARY 4, 1994 IN VOL. 3 OF CONDOMINIUMS, PAGES 92 AND 93, UNDER AUDITOR'S FILE NO. 9401040258, AND THE AMENDED DECLARATION OF CONDOMINIUM, RECORDED JANUARY 4, 1994 UNDER AUDITOR'S FILE NO. 9401040259.

IN THURSTON COUNTY, WASHINGTON..

EXHIBIT B

[Description of phases, to be included as part of Exhibit B along with site plans]

Phase 1
Reference **DA-1.1 – SITE PLAN - PHASE 1**, Exhibit B

- Demolish surface parking area and stalls from Phase 1 build area. Maintain approximately 24 stalls in surface parking area to south. Add 4 new compact stalls to Phase 1 area.

- Constructions of new building, consisting of approximately 65 low income dwelling units, and a homeless shelter for approximately 60 residents.

- Provide adequate Stormwater Management for both Phase 1 and 2 development.

- Provide trash/recycle enclosure to service both Phase 1 and Phase 2.

- Provide landscape improvements from the proposed Pattison Street driveway to the north of the site, including approximately 26 tree units as partial fulfillment of Urban Forestry requirements.

- Martin Way E - Maintain existing frontage, including sidewalk and planter strip.

- Provide full frontage improvements on entire Pattison St NE frontage per standard "Neighborhood Collector Street," drawing 4-2I in Exhibit C. Existing driveway access at the north of site on Pattison Street shall be removed, with a new driveway to be added mid-site, to establish new access between Phase 1 and Phase 2. Curb and channelization on Pattison Street NE from the recently completed intersection improvements for both future phases are included in Exhibit C on the sheet titled "Pattison Street NE Frontage Improvements."

Phase 2
Reference **DA-1.2 – SITE PLAN - PHASE 2**, Exhibit B

- Demolition of existing office building and associated parking lot.

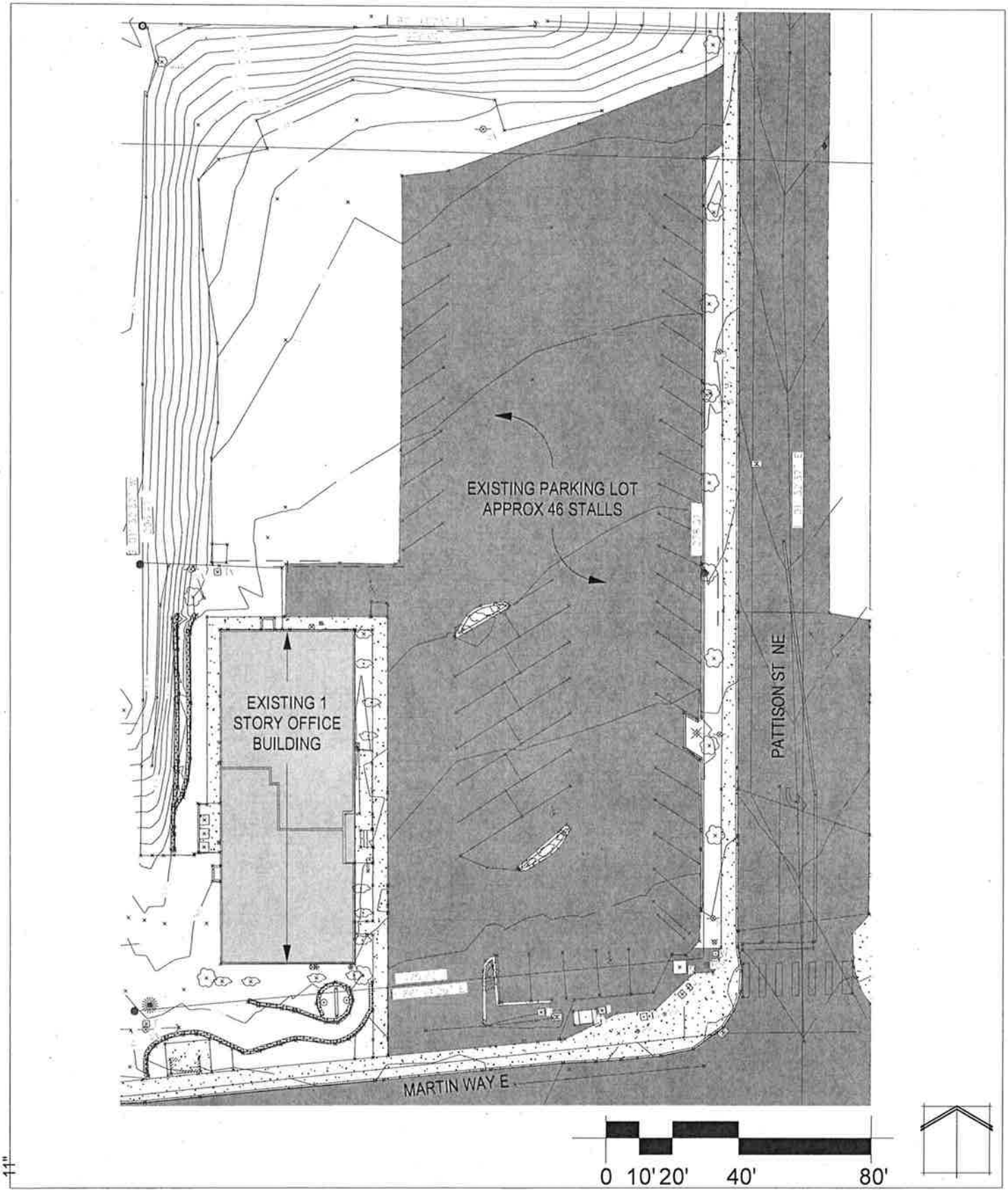
- Construction of new building, consisting of approximately 47 low income dwelling units.

- Construction of new parking lot for approximately 13 additional stalls, for a total of 17 stalls, as established by the land use review process. The parties acknowledge this will require the Developer to apply for a parking modification that meets the criteria required by existing City land use regulations, which can be supported by the City.

- Provide landscape improvements for the remainder of the site, including any additional tree units required to fulfill Urban Forestry requirements.

- Provide full frontage improvements on Martin Way E per standard Arterial with bike lane drawing 4-2B in Exhibit C. Reuse and relocate existing bus structure to paved area within the Planting area B in City of Olympia "Arterial" Drawing 4-2B.

EXHIBIT B



ORIGINAL SHEET SIZE 8 1/2" x 11"

ENCORE
ARCHITECTS

1402 Third Avenue, Suite 1000
Seattle, WA 98101

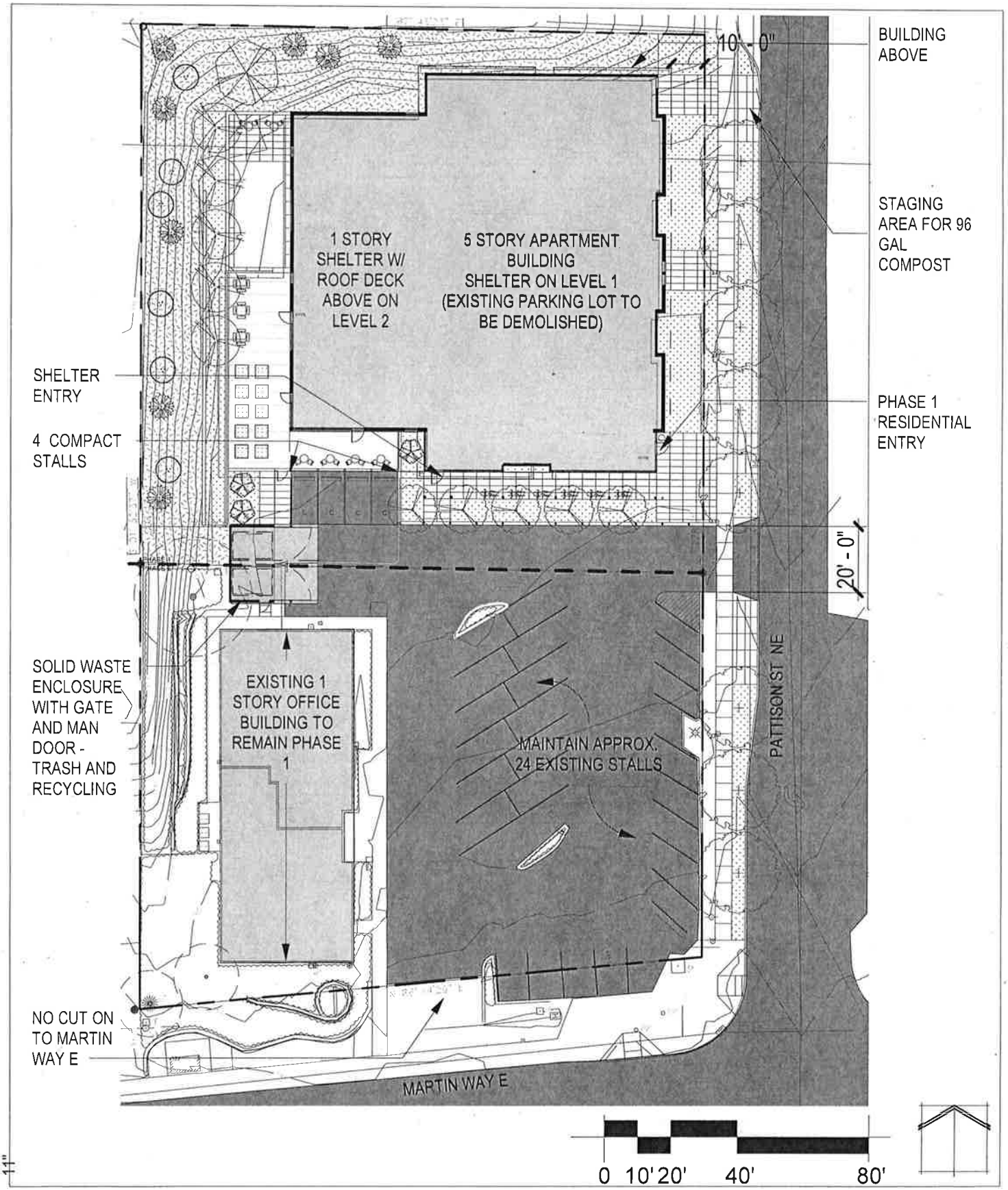
encorearchitects.com

2828 MARTIN WAY - PHASE 1

EXISTING SITE PLAN

DA-1.0

EXHIBIT B



ORIGINAL SHEET SIZE 8 1/2" x 11"

ENCORE ARCHITECTS

1402 Third Avenue, Suite 1000
Seattle, WA 98101

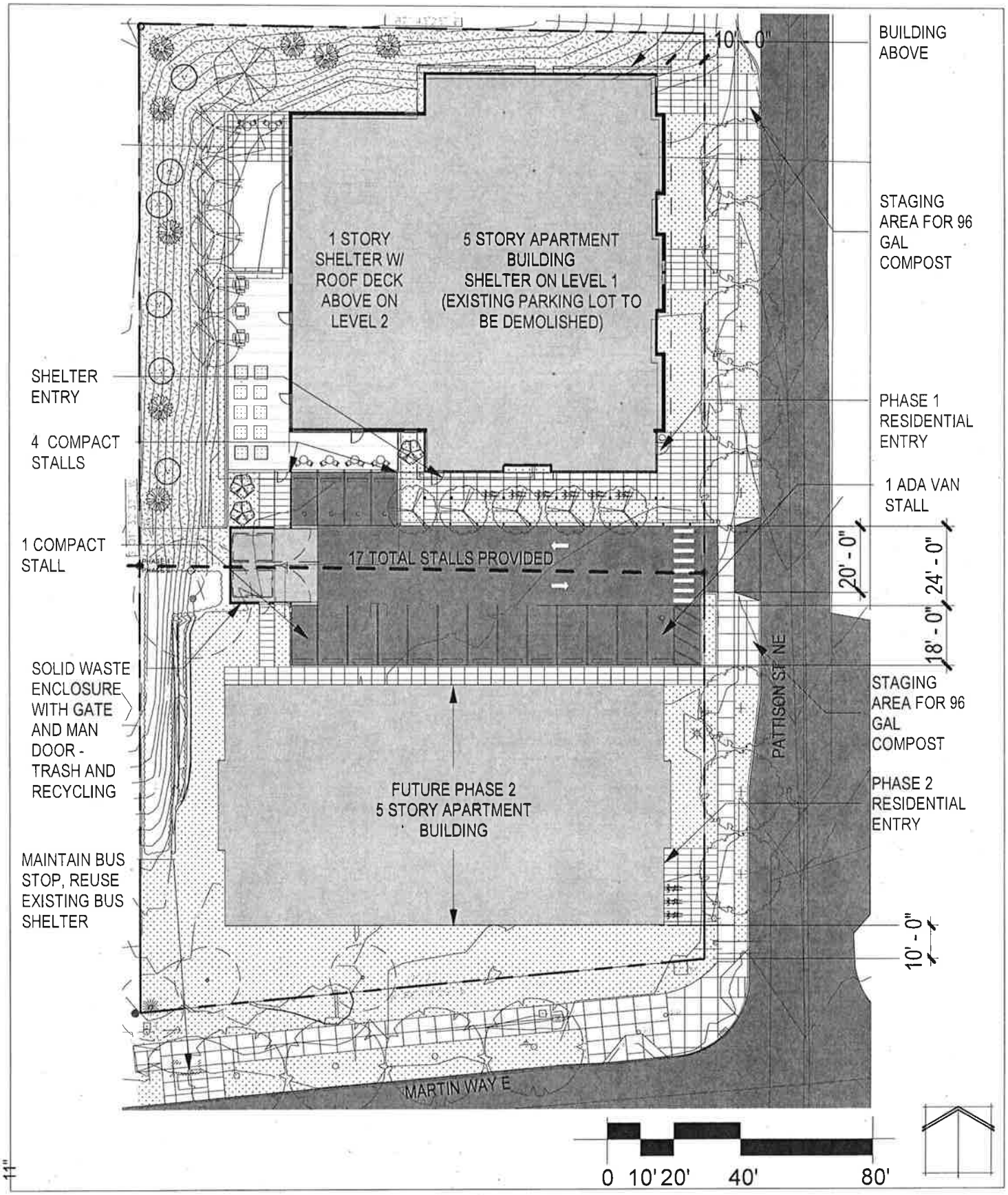
encorearchitects.com

2828 MARTIN WAY - PHASE 1

SITE PLAN - PHASE 1

DA-1.1

EXHIBIT B



ORIGINAL SHEET SIZE 8 1/2" x 11"

ENCORE ARCHITECTS

1402 Third Avenue, Suite 1000
Seattle, WA 98101

encorearchitects.com

2828 MARTIN WAY - PHASE 1

SITE PLAN - PHASE 2

DA-1.2

EXHIBIT C

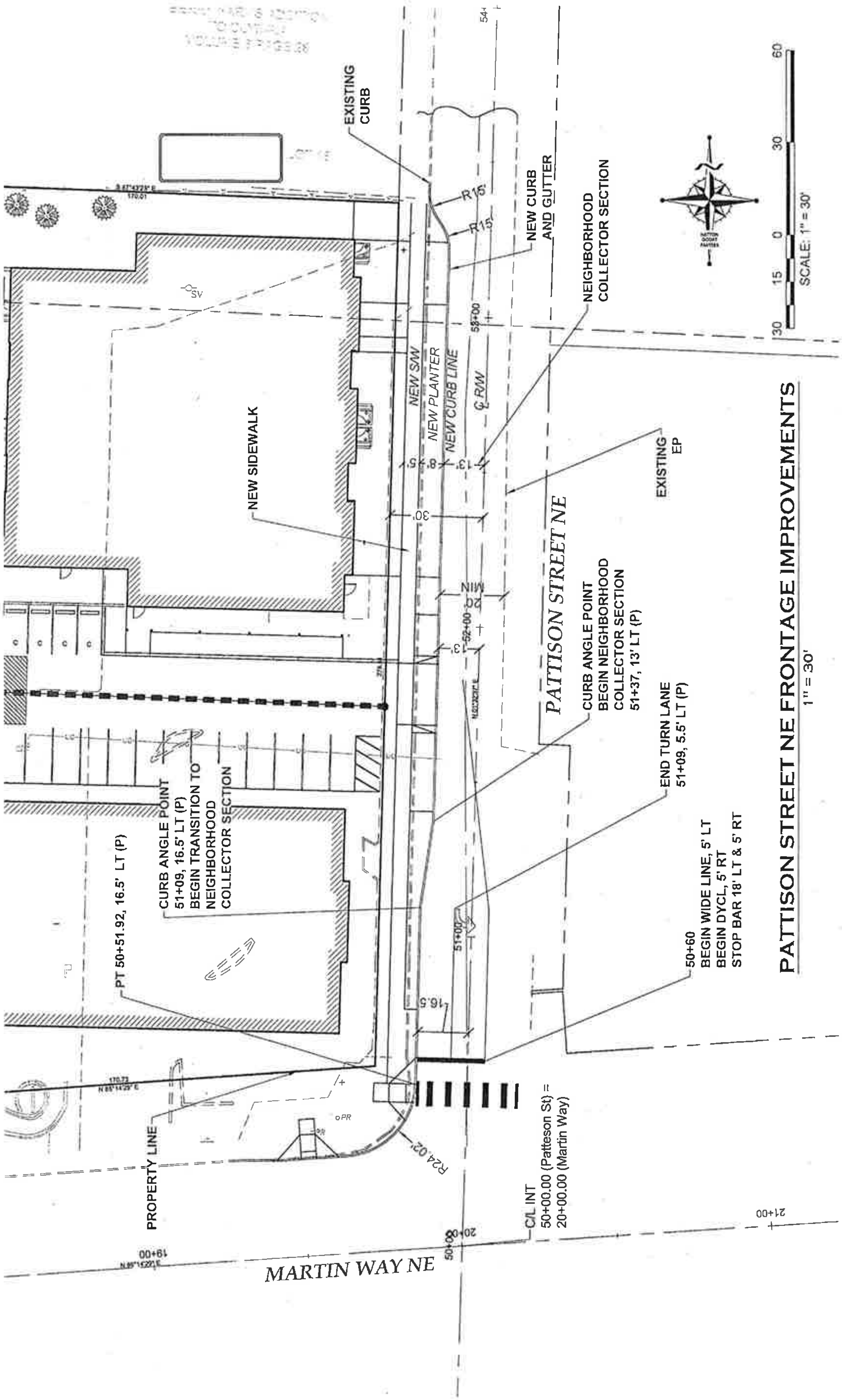
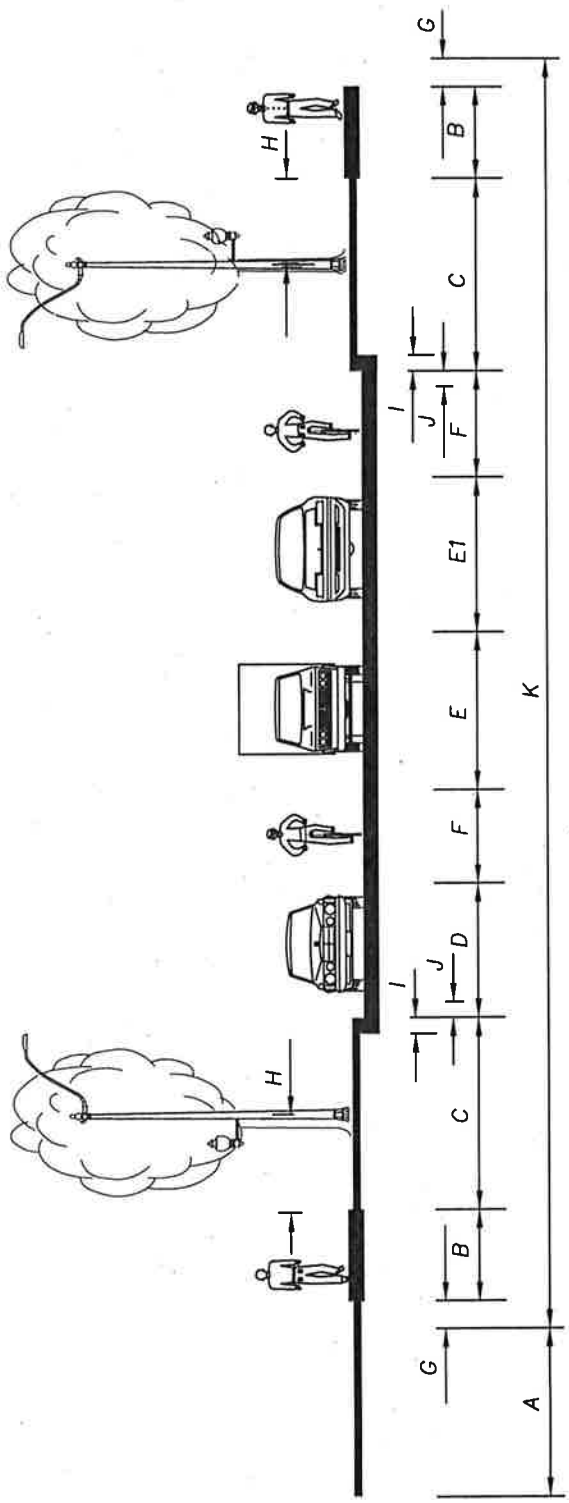

PATTISON STREET NE FRONTAGE IMPROVEMENTS
1" = 30'
SCALE: 1" = 30'
PATTISON STREET NE
MARTIN WAY NE
EXISTING CURB
NEW CURB AND GUTTER
NEIGHBORHOOD COLLECTOR SECTION
EXISTING EP
NEW SIDEWALK
NEW SW
NEW PLANTER
NEW CURB LINE
℄ R/W
R15'
R15'
30'
20' MIN
13'
8.5'
5'
16.5'
CURB ANGLE POINT
BEGIN NEIGHBORHOOD
COLLECTOR SECTION
51+37, 13' LT (P)
END TURN LANE
51+09, 5.5' LT (P)
CURB ANGLE POINT
51+09, 16.5' LT (P)
BEGIN TRANSITION TO
NEIGHBORHOOD
COLLECTOR SECTION
PT 50+51.92, 16.5' LT (P)
50+60
BEGIN WIDE LINE, 5' LT
BEGIN DYCL, 5' RT
STOP BAR 18' LT & 5' RT
PROPERTY LINE
R24.02'
C/L INT
50+00.00 (Patteson St) =
20+00.00 (Martin Way)
19+00
20+00
21+00
51+00
52+00
53+00
54+

EXHIBIT C



DIMENSIONS = FEET

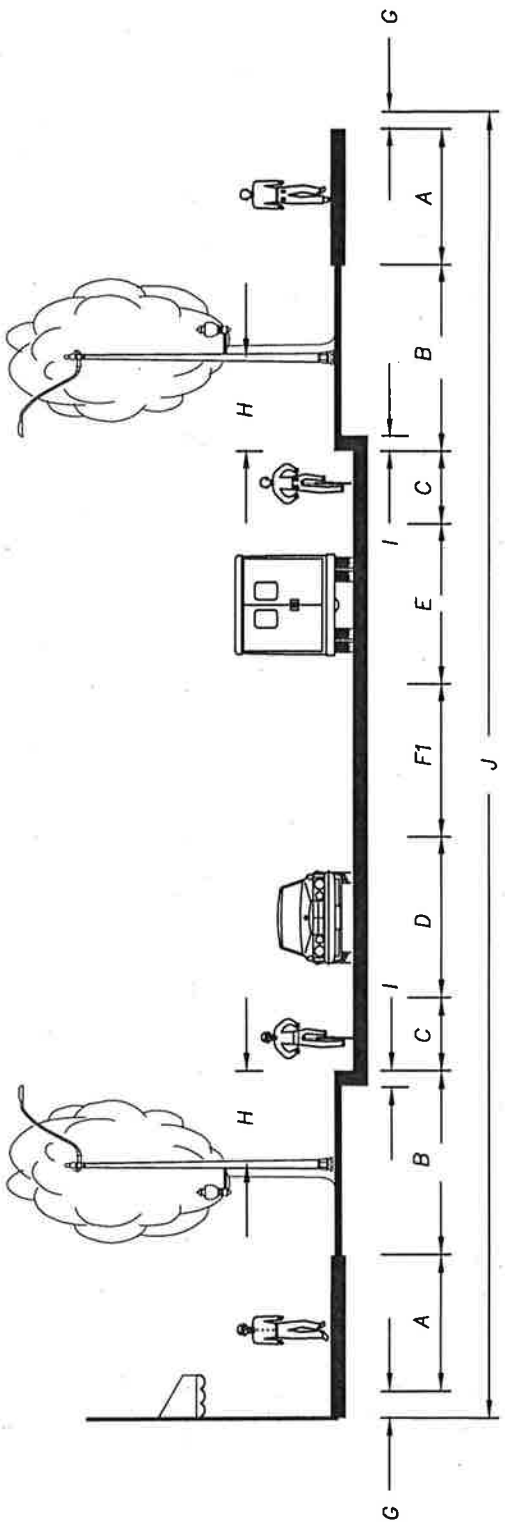
NUMBER OF LANES		EASEMENT A	SIDEWALK B	PLANTING C	PARKING D	LANE E	LANE E1	BIKE LANE F	R/W BEHIND SIDEWALK G	CLEAR ZONE H	CURB I	GUTTER* J	RIGHT OF WAY K	SEE STANDARD DRAWING 4-6A FOR MINIMUM STRUCTURAL DESIGN AND STREET CROSS SLOPE DESIGN	SEE MINIMUM STREET DESIGN STANDARDS TABLE FOR ADDITIONAL DESIGN ELEMENTS	ADT 500-3,000
2 LANES		10	5	8	7	10	9	0	1	4	0.5	1	54			
2 LANES CLASS II*		10	5	8	7	10	10	5	1	4	0.5	1	64			
2 LANES CLASS III*		10	5	8	7	14	14	0	2	4	0.5	1	64			

A= PRIVATE UTILITY EASEMENT

*GUTTER NOT ALLOWED NEXT TO BIKE FACILITY

APPROVED BY	REVISED DATE	CITY OF OLYMPIA	STD. DWG. NO.
FRAN R. EIDE, PE CITY ENGINEER	8/30/2018	NEIGHBORHOOD COLLECTOR STREET	4-21

EXHIBIT C



DIMENSIONS = FEET

NUMBER OF LANES		SIDEWALK A	PLANTING B	BIKE LANE C	LANE D	LANE E	LEFT TURN LANE F1	R/W BEHIND SIDEWALK G	CLEAR ZONE H	CURB I	RIGHT OF WAY J
2 LANES		8	10	5	10	10	0	1	5	0.5	68
3 LANES		8	10	5	10	10	11	1	5	0.5	79
4 LANES		8	10	5	10	10	0	1	5	0.5	88
5 LANES		8	10	5	10	10	11	1	5	0.5	99

SEE STANDARD DRAWING 4-6A FOR MINIMUM STRUCTURAL DESIGN AND STREET CROSS SLOPE DESIGN

SEE MINIMUM STREET DESIGN STANDARDS TABLE FOR ADDITIONAL DESIGN ELEMENTS

ADT 14,000-40,000

APPROVED BY	REVISED DATE	CITY OF OLYMPIA	STD. DWG. NO.
FRAN R. EIDE, PE CITY ENGINEER	8/10/2015	ARTERIAL	4-2B

City Hall
601 4th Avenue E.
Olympia, WA 98501
360-753-8244

City Council

Draft 2019 Wastewater Management Plan Briefing

Agenda Date: 2/25/2020
Agenda Item Number: 6.A
File Number:20-0059

Type: information **Version:** 1 **Status:** Other Business

Title
Draft 2019 Wastewater Management Plan Briefing

Recommended Action
Committee Recommendation:
The Utility Advisory Committee reviewed the Draft 2019 Wastewater Management Plan and recommended forwarding it to Council for a briefing, and a public hearing and approval at a future date.

City Manager Recommendation:
Receive a briefing on the Draft 2019 Wastewater Management Plan and authorize holding a public hearing at a later date.

Report
Issue:
Whether to receive a briefing on the Draft 2019 Wastewater Management Plan and authorize holding a Public Hearing at a later date.

Staff Contact:
Susan Clark, Engineering and Planning Supervisor, Public Works Water Resources, 360.753.8321

Presenters:
Susan Clark, Engineering and Planning Supervisor, Public Works Water Resources
Diane Utter, Water Resources Engineer, Public Works Water Resources

Background and Analysis:
The Wastewater Utility's mission is to collect and convey wastewater to treatment facilities in a manner that protects the health of both the public and our environment.

The Utility carries out its mission by maintaining and replacing existing utility infrastructure and planning for expansion into areas within the City and Urban Growth Area that are currently undeveloped or served by onsite sewage systems (OSS). Wastewater flows through City-owned sewer infrastructure to the LOTT Clean Water Alliance's Budd Inlet Treatment Plant, where it is treated and either discharged to Budd Inlet, or reclaimed for beneficial uses.

The work of the Wastewater Utility is guided by a management plan approved in 2013 (2013 Plan). Under regulation, a wastewater (or sewer) utility is required to have a general sewer plan at the time a sewer utility is first established. Thereafter, plan updates are not a regulatory requirement. Because our management plan serves as a valuable tool to facilitate efficient and effective management of programs and projects, the Wastewater Utility regularly updates its plan.

In spring 2018, a City cross-sectional Plan Update Team began meeting to update the 2013 Plan. Because the 2013 Plan served as an excellent starting point, the Plan Update Team proposes minor updates only, as summarized below:

- Consolidation of two 2013 Plan goals (water use and energy) into one new climate change goal.
- Revision of 2013 Plan objectives to reflect recent accomplishments and current issues facing the Utility.
- Elimination of 2013 Plan strategies the Wastewater Utility has accomplished and incorporation of new strategies primarily focused on addressing climate change and adapting infrastructure to accommodate sea level rise.
- Revision of the challenges facing the Wastewater Utility to address current conditions.
- Incorporation of a revised system capacity analysis, including the incorporation of four capital projects into the 2019 Plan's 20-year capital facilities plan to address future capacity limitations.
- Incorporation of a revised financial analysis.

Under the Draft 2019 Wastewater Management Plan (2019 Plan), the Wastewater Utility will emphasize the following existing key strategies:

- Conversions of OSS to municipal sewer.
- Prohibiting Sewer Tank Effluent Pump (STEP) systems for new subdivisions and commercial development while recognizing STEP systems may be appropriate in limited areas.
- Reducing Inflow and Infiltration.
- Asset Management Program Implementation (e.g. condition rating and preventive maintenance).

Recommended new key strategies include:

- Prioritizing extensions of gravity sewer systems over other sewer types (e.g. STEP, grinder).
- Exploring options for public participation in new regional lift stations as a means to construct sewers in areas where densities are not favorable to development-driven sewer infrastructure.
- Developing a force main cleaning program.
- Understanding STEP system costs.
- Supporting the City's climate mitigation work and addressing sea level rise.

The 2019 Plan does not request appreciable new funding or staff. It provides a strategic financial management template for the next six years.

Type: information **Version:** 1 **Status:** Other Business

A State Environmental Policy Act (SEPA) checklist has been submitted for the Draft 2019 Plan and a SEPA determination is pending.

Neighborhood/Community Interests (if known):
The City developed a project website and sent customers project information in the City's Five Things March/April 2019 publication. The Utility Advisory Committee reviewed the 2019 Plan and recommended approval. The Utility held a public comment period on the 2019 Plan. Minimal comments were received. See attachment "Revisions Made to Address Public and Stakeholder Comments".

Options:
1. Authorize a public hearing on the 2019 Plan, to be held at a later date. Implementation of the 2019 Plan will ensure the needs of the community are addressed.
2. Request staff make changes to the 2019 Plan and delay a public hearing until issues are resolved. This option will delay implementation.

Financial Impact:
The Wastewater Utility funds the Wastewater Management Plan. The 2019 Plan has utility rate and general facilities charge (GFC) implications. However, the implementation of future rates and GFCs is addressed during Council's annual budget decisions. The Utility Advisory Committee will evaluate the financial information in the plan and will provide their recommendations to Council during the budgeting process.

Chapter 11 and Appendix H contain the financial analysis conducted for the 2019 Plan by the Utility's financial consultant, FCS Group, including rate increase necessary to fully fund all recommended strategies and capital projects as presented.

Attachments:
UAC Letter of Support
Summary Document
Link to 2019 Plan and Appendices
Revisions to Address Public and Stakeholder Comments

City of Olympia | Capital of Washington State
P.O. Box 1967, Olympia, WA 98507-1967
olympiawa.gov

November 7, 2019

Olympia City Council
PO Box 1967
Olympia, WA 98507- 1967

Dear Councilmembers:

SUBJECT: Draft 2019 Wastewater Management Plan

This letter provides a recommendation from the City's Utility Advisory Committee to City Council regarding the Draft 2019 Wastewater Management Plan.

The City's Utility Advisory Committee (UAC) work plan for this year tasked the Committee with review of the Draft 2019 Wastewater Management Plan and providing subsequent recommendations to City Council.

The UAC participated in the scoping of the Wastewater Plan in 2018. Emerging wastewater issues were discussed and incorporated into the outline for the Plan. During the spring and summer of 2019, the UAC reviewed a draft of the Plan and provided City staff with comments and suggestions. Key topics of discussion included climate change, capacity issues and financial implications.

The UAC agrees with staff regarding the overall status of the Wastewater Utility. The City's Wastewater Utility is in good shape after implementing strategies from the 2013 Wastewater Management Plan. The draft 2019 Plan presents no surprises. Rather, it takes advantage of the strong position of the Utility to suggest long-term refinements in the delivery of its services. The UAC's suggestions for the Utility have been incorporated into the document.

Financial Implications

The financial analysis associated with the draft Plan confirms that the Utility is financially stable. The financial evaluation investigated both six and 20-year capital facility plans. These capital plans anticipate proactively implementing infrastructure needs at a rate that is consistent with current expenditures.

Wastewater general facility charges (GFCs) were also evaluated, considering a 20-year horizon for planning purposes. The UAC will review a specific recommendation on Wastewater GFCs as part of our rate discussions for the 2021 budget.

Recommendation to City Council

The UAC supports the draft 2019 Wastewater Plan and recommends the City Council approve it.

Thank you for the opportunity to comment. Please let me or Luke Bowerman, UAC Vice Chair, know if you have any questions.

Sincerely,

MIKE BUFFO
Chair, Utility Advisory Committee

ec. UAC Members

2019 Draft Wastewater Plan - Development Process

What are our Wastewater Planning Requirements?

A general sewer plan is required before sewer service can first be provided. Once a general sewer plan is approved, engineering reports and plans and specifications for sewer line extensions, including pump stations, are not required if the extension is in conformance with the general sewer plan. If not, an engineering report containing everything required for a general sewer plan must be submitted to Ecology.

Generally, a sewer general plan contains information on the existing condition of the sewer system, including known problems, and anticipated needs for future facilities, including timing, cost and financing. Compliance with the State Environmental Policy Act (SEPA) is required prior to local and Ecology approval.

Wastewater Management Plan Update – Project Assumptions

The general sewer plan update project was guided by the following assumptions:

The 2013 Wastewater Management Plan serves as an excellent starting point for the 2019 Wastewater Management Plan – a minor update occurred.

A City cross-sectional writing team served as the primary plan authors. Consulting assistance was used for:

- Financial analysis and financial plan
- Project cost estimates
- Sewer system modeling and capacity analysis

Public outreach activities were limited in scope. Instead, the Utility Advisory Committee served as the primary review committee.

Wastewater Plan	2018								2019												2020			
Planning Timeline	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
Writing team created - kick-off meeting held	★																							
Project website launched								★																
Discussion with UAC on significant issues									★															
5 Things article											★	★												
Discussion with UAC on Goals, Objectives and Strategies												★												
E-Newsletter sent																		★						
UAC Draft Plan briefing and recommendation																		★						
Public review period																		★						
Draft Plan provided to commerce																		★						
Response to public comments																			★					
SEPA checklist completed																				★				
Draft Plan provided to Ecology																					★			
Preliminary comments received from Ecology																					★			
Next Steps																								
Council briefing - February 25																						★		
SEPA completed - TBD																								
Public hearing and approval - TBD																								

What has the Utility Accomplished?

The following key Utility needs were successfully accomplished under the 2013 Plan:

- A number of illicit discharges were eliminated, most notably at 10th / Union and Schneider creek.
- Formed a partnership with LOTT to address Fats, Oils and Grease (FOG).
- An increase in onsite sewage system (OSS) conversions has occurred as a result of Utility staff's education and outreach efforts and LOTT's Septic Conversion Incentive Pilot Program.
- The repayment mechanism for sewer extensions was revised to make onsite sewage system conversions more affordable.
- Improvements in the use of technology through the ESRI Collector in field data entry.
- 99 percent of gravity sewer mains and 75 percent of manholes citywide have been condition rated.
- Developed and implemented a cured in place pipe (CIPP) program.
- Replaced aging generators at sewer lift stations.
- Revised the Olympia Municipal Code to allow Septic Tank Effluent Pump (STEP) systems to serve new short plats.
- Established volume-based residential wastewater rates.

Wastewater Utility Mission

To collect and convey wastewater to treatment facilities in a manner that protects the health of both the public and our environment.

What are the Utility's Key Challenges?

The Utility faces numerous challenges in providing wastewater service to its service area. The 2013 Wastewater Plan identified nine key challenges the Utility anticipated during the Plan's life-cycle. As part of the Plan update, the Writing Team reviewed these nine key challenges against recent accomplishments and current issues facing the Utility to determine whether or not the identified challenges remained relevant.

As a result of this work, the following eight key challenges were identified:

Aging Infrastructure: Aging and maintenance-intensive infrastructure poses risks to public health and water quality. Understanding the condition of the Utility's infrastructure informs replacement and maintenance decisions and is referred to as "asset management". Effective operations and maintenance is critical to the wastewater system.

STEP Systems: *(New)* STEP challenge topics include: maintenance (including lifecycle costs of major components), odor control and corrosion control.

Inflow and Infiltration: *(Revised)* Inflow and Infiltration (I &I) from groundwater and stormwater can unnecessarily consume pipe and treatment plant capacity. To keep pipe capacities from being exceeded, priority areas for addressing I & I should be identified.

Onsite Sewage Systems: Although progress has been made on the removal of onsite sewage systems located within city limits and the urban growth area in recent years, onsite sewage systems in urban areas continue to threaten ground and surface water quality and public health, particularly in northeast and southeast Olympia.

Extending Sewers to New Development: Planned development in Olympia and its Urban Growth Area requires planning for and financing sewer extensions cost-effectively and equitably.

Climate Change: *(Revised)* Changing climate in the Pacific Northwest likely will result in increased rainfall and rising sea levels. Increased rainfall and associated flooding could result in increased flows into the combined storm/sewer system. Approximately five sewer pump stations could be impacted by rising seas. Early adaptation to higher sea levels may allow for continued reliability and lowest reasonable cost. Efforts made by the sewer utility such as reducing its energy use and promoting water conservation activities could assist the community in its efforts to mitigate climate change.

FOG: *(New)* Significant utility staff time is spent on tasks associated with FOG, including educating customers on proper disposal methods, responding to sewer system blockages and coordinating with LOTT. The Utility's current FOG cleaning program is focused on grease cleaning. To ensure it continues to be addressed, current staffing, anticipated staffing needs and potential opportunities to partner with the Stormwater Utility should be analyzed and identified.

Equitable and Predictable Rates and Fees: Creating predictability for customers and developers is difficult in a complex environment. The plan will address the balance between ongoing utility needs and keeping rates as low as possible.

What are the 2019 Wastewater Plan Goals and Objectives?

As part of the Plan update, the Writing Team reviewed the 2013 Wastewater Management Plan goals and objectives. The review resulted in the consolidation of two 2013 goals (water use and energy) into one new climate change goal. The 2013 Plan objectives were revised to reflect recent accomplishments and current issues facing the Utility. In addition to goals and objectives, the Plan also contains 42 strategies which establish our approach to meeting the Plan's objectives.

Water Quality Goal: Clean Water Act and Safe Drinking Water Act standards for nitrogen, fecal coliform and other constituents of concern in groundwater and surface water are met.

Objective 1A: Encourage OSS conversions through the Septic to Sewer Program.

Objective 1B: Facilitate the orderly expansion of the public sewer system.

Objective 1C: Identify and eliminate illicit discharges of wastewater into stormwater conveyance pipes and receiving waters.

Public Health Goal: No one is exposed to sewer overflows or excessive odors.

Objective 2A: Reduce the volume of sewer overflows annually.

Objective 2B: Reduce odor complaints promptly and resolve as appropriate.

Climate Change Goal: The Utility implements all applicable City and region-wide climate change mitigation and adaptation measures.

Objective 3A: Reduce the Wastewater Utility's greenhouse gas emissions.

Objective 3B: Adapt wastewater infrastructure to accommodate predicted sea level rise projections.

Objective 3C: Adapt wastewater infrastructure to accommodate forecast precipitation trends.

Utility Rates and Fees Goal: Utility rates and fees are equitable and affordable, minimizing rate increases while maintaining consistent levels of service.

Objective 4A: Coordinate the financial management of the three water-based utilities so that utility rate increases are distributed over time.

Objective 4B: Manage utility rates and connection fees consistent with the City's guiding principle of growth paying for growth.

Objective 4C: Use computer-based asset management systems in order to minimize infrastructure life-cycle costs while maintaining a consistent level of service.

Integrated Water Resources Goal: Water Resources utilities are planning together for long-term environmental, economic and social changes.

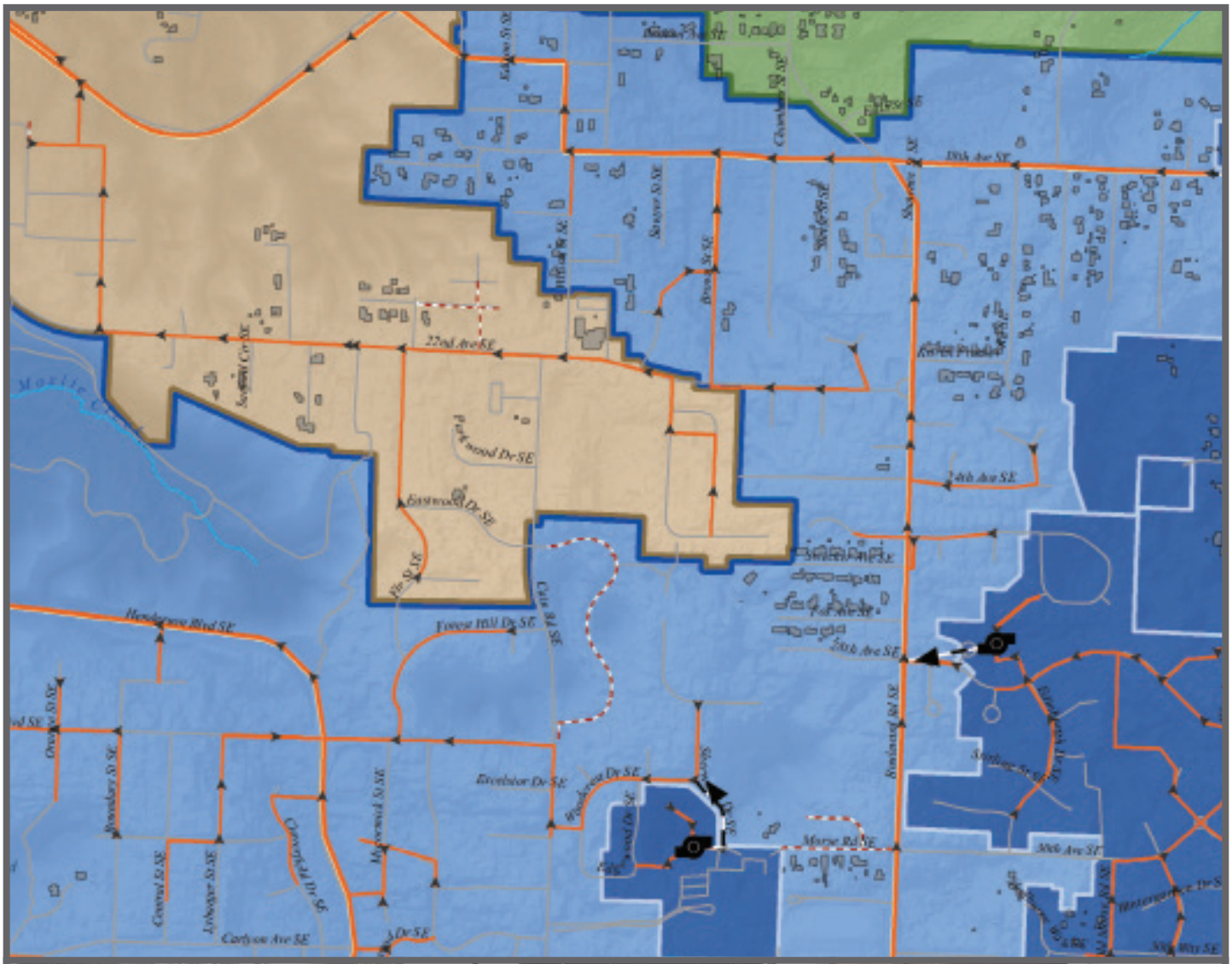
Objective 5A: Integrate Water Resources activities that share common goals, resources and/or assets.

Information Goal: Customers and the community are informed about and involved in wastewater management activities.

Objective 6A: Keep customers and the community informed and involved.

DRAFT Wastewater Management Plan

August 2019



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Chapter 1
Executive Summary

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CHAPTER 1 – EXECUTIVE SUMMARY

1.1 Overall Vision

The Wastewater Utility's mission is to collect and convey wastewater, also known as sewage, to treatment facilities in a manner that protects the health of both the public and the environment. It does this by: (1) maintaining and replacing existing utility infrastructure, and (2) planning for expansion into areas within the City and its Urban Growth Area (UGA) that are currently undeveloped or served by septic systems, also known as onsite sewage systems (OSS).

Under the direction of previous wastewater management plans, utility staff is successfully implementing a comprehensive and effective wastewater program. This Plan provides refinements rather than major changes to the 2013 Plan.

The guiding vision for addressing these two aspects of wastewater management is taken from the Utilities Goals in the City's Comprehensive Plan. For example, Goal GU2 reflects the City's vision for a sustainable future for our community:

> *Reliable utility service is provided at the lowest reasonable cost, consistent with the City's aims of environmental stewardship, social equity, economic development and the protection of public health.*

With this Plan, the intention is to identify goals and objectives and develop specific strategies to address them. In this way, the Plan provides policy and financial guidance for the Utility in constructing, operating, maintaining, and improving utility infrastructure for the next 20+ years.

The Utility provides a level of service consistent with City and State expectations for protecting public and environmental health as well as ensuring that infrastructure operation, maintenance, and upgrades are proactively completed. Under this Plan, the expected level of service will be maintained.

The Utility is responsible for conveying wastewater flows to the Budd Inlet Treatment Plant, operated by the LOTT Clean Water Alliance (LOTT). While well-coordinated with utility management and this Plan, LOTT is a distinct entity meeting the needs of Olympia, Lacey, Tumwater and Thurston County. More information on LOTT can be found at *http://www.lottcleanwater.org/*.

This chapter summarizes the challenges identified in this Plan; presents the goals, objectives and strategies that have been developed to address these challenges; and lists the capital projects that have been prioritized for implementation in the next 20+ years. Table 1.1 defines these key planning terms; understanding them will make it easier to see how specific elements of this Plan relate to each other.

Table 1.1 Key Planning Terms

Goals	Broad, qualitative statements of what the Wastewater Utility hopes to achieve.
Objectives	Specific, measurable statements of what will be done to achieve the Goals within a particular time frame.
Strategies	General approaches or methods for achieving Objectives and resolving specific issues. Strategies speak to the question "How will we go about accomplishing our Objectives?"

1.2 Challenges

The Utility faces numerous challenges in providing sewer service consistent with its mission and vision. The 2013 Wastewater Management Plan identified nine key challenges. Since 2013, utility staff have taken major steps to address these challenges; however, some of these and others remain to be addressed in this and future wastewater management plans.

Below is summary of the major challenges now facing the Utility; they are discussed in more detail in **Chapter 8**:

1. **Aging infrastructure** - Aging and maintenance-intensive infrastructure poses risks to public health and water quality. Understanding the condition of the Utility's infrastructure assists with replacement and maintenance decisions and is referred to as "asset management". Effective operations and maintenance are critical to the wastewater system.
2. **Onsite sewage systems** – Although progress has been made on the removal of OSS located within city limits and the urban growth area in recent years, OSS in urban areas continue to threaten ground and surface water quality and public health, particularly in northeast and southeast Olympia.
3. **Extending sewer infrastructure to new development** - Planned development in Olympia and its UGA requires planning for sewer extensions cost-effectively and equitably.
4. **Climate Change** - Changing climate in the Pacific Northwest will likely result in increased rainfall and rising sea levels. Increased rainfall and associated flooding could result in increased flows into the combined storm/sewer system. Approximately five wastewater lift stations could be impacted by rising seas. Early adaptation to higher sea levels may allow for continued reliability and lowest reasonable cost. Efforts made by the Utility, such as reducing its energy use and promoting water conservation activities, could assist the community in its efforts to mitigate climate change.
5. **Equitable and predictable rates and fees** – Creating predictability for customers and developers is difficult in a complex environment. The plan will address the balance between ongoing utility needs and keeping rates as low as possible.
6. **STEP Systems** – Septic Tank Effluent Pump (STEP) challenge topics include: maintenance—including lifecycle costs of major components, odor control and corrosion control.
7. **Inflow and Infiltration** - Inflow and Infiltration (I & I) from groundwater and stormwater can unnecessarily consume pipe and treatment plant capacity. To keep pipe capacities from being exceeded, priority areas for addressing I & I should be identified.
8. **Fats, Oils, and Grease** - Significant utility staff time is spent on tasks associated with Fats, Oils, and Grease (FOG), including educating customers on proper disposal methods, responding to wastewater system blockages and coordinating with LOTT. The Utility's current FOG cleaning program is focused on grease cleaning. To ensure it continues to be addressed, current staffing, anticipated staffing needs and potential opportunities to partner with the City's Storm and Surface Water Utility should be analyzed and identified.

1.3 Summary of Goals, Objectives and Strategies

This Plan establishes seven goals for the next 20 years, with one or more objectives and strategies for each. **Chapter 9** explains how the Plan's goals, objectives and strategies address the challenges listed above, and how they are oriented toward the Comprehensive Plan vision of providing "reliable utility service at the lowest reasonable cost, consistent with the City's aims of environmental stewardship, social equity, economic development and the protection of public health".

Table 1.2.includes the Utility's goals and corresponding objective(s). Under each objective are its respective strategies.

Table 1.2 Goals, Objectives and Strategy Summary		
Water Quality Goal Clean Water Act and Safe Drinking Water Act standards for nitrogen, fecal coliform and other constituents of concern in groundwater and surface water are met.		
Objective 1A	**Encourage OSS conversions through the Septic to Sewer Program.**	
	Strategy 1A1	Complete sewer extensions projects that allow for individual OSS conversions.
	Strategy 1A2	Provide technical assistance and public education for individual and neighborhood OSS conversions to municipal sewer.
Objective 1B	**Facilitate the orderly expansion of the public sewer system.**	
	Strategy 1B1	Give priority to extensions of gravity sewer systems over other sewer types (e.g. STEP, grinder).
	Strategy 1B2	Allow the limited use of STEP systems for OSS conversions and infill development in neighborhoods currently served by STEP systems.
	Strategy 1B3	Explore options for public participation in new lift stations and force mains.
Objective 1C	**Eliminate illicit discharges of wastewater into stormwater conveyance pipes and receiving waters.**	
	Strategy 1C1	In partnership with the City's Storm and Surface Water Utility, provide timely investigation and response to illicit discharges.
Public Health Goal No one is exposed to sewer overflows or excessive odors.		
Objective 2A	**Reduce the volume of sewer overflows annually.**	
	Strategy 2A1	Reduce the number of sewer pipe blockages through continued preventive maintenance activities such as pipe and maintenance hole cleaning, root control and minor repairs.
	Strategy 2A2	Continue to provide adequate resources for improved mapping and documentation of the wastewater pipe system.
	Strategy 2A3	Implement education and enforcement efforts to reduce preventable blockages due to fats, oils and grease (FOG) build-up, with assistance from LOTT.
	Strategy 2A4	Reduce infiltration and inflow in prioritized areas so that pipe capacities are not exceeded.
	Strategy 2A5	During sewer spills and other emergencies, utilize available regional resources through the LOTT Mutual Aid Agreement.
	Strategy 2A6	Improve operations and maintenance capacity by continuing to incorporate new field technologies.
	Strategy 2A7	Use succession planning and new staff on-board training as tools to ensure adequate staff resources.

Objective 2B	**Manage odors from sewer systems.**	
	Strategy 2B1	Investigate odor complaints promptly and resolve as appropriate.
Climate Change Goal The Utility implements all applicable City and region-wide climate change mitigation and adaptation measures.		
Objective 3A	**Reduce the Wastewater Utility's greenhouse gas emissions.**	
	Strategy 3A1	Complete an energy audit for lift stations.
	Strategy 3A2	Develop a sewer force main cleaning program.
	Strategy 3A3	Research opportunities to sell back stored energy to the grid.
	Strategy 3A4	Meet City-wide greenhouse gas emissions reduction goals including those related to fleet and building operations.
	Strategy 3A5	Continue participation in Puget Sound Energy's Green Power Program.
	Strategy 3A6	Continue implementing green infrastructure project evaluation processes (e.g. Envision) for wastewater capital projects.
	Strategy 3A7	Prioritize Inflow and Infiltration projects in lift station basins with high peak flows.
Objective 3B	**Adapt wastewater infrastructure to accommodate predicted sea level rise projections.**	
	Strategy 3B1	Perform a thorough evaluation of the wastewater infrastructure vulnerability to sea level rise.
	Strategy 3B2	Elevate, flood proof or relocate low-lying lift stations.
	Strategy 3B3	Monitor tidally influenced zones to determine whether hydraulic pressures are increasing Inflow and Infiltration.
	Strategy 3B4	Consider revisions to Engineering Design and Development Standards that take into account infrastructure's estimated effective life and sea level rise projections.
	Strategy 3B5	Collaborate with the LOTT Clean Water Alliance on winter preparedness and emergency response efforts. Expand efforts to include protection of the combined sewer.
Objective 3C	**Adapt wastewater infrastructure to accommodate forecast precipitation trends.**	
	Strategy 3C1	Track climate science to understand precipitation trends and the implications for future urban and watershed-based flooding.
	Strategy 3C2	Consider revisions to Engineering Design and Development Standards and the Drainage Design and Erosion Control Manual that take into account regional climate model precipitation projections throughout infrastructure estimated effective life.
	Strategy 3C3	Collaborate with the LOTT Clean Water Alliance to separate combined wastewater/stormwater pipes in conjunction with stormwater and road improvements or residential repairs, when economically feasible.

Utility Rates and Fees Goal Utility rates and fees are equitable and affordable, minimizing rate increases while maintaining consistent levels of service.		
Objective 4A	**Coordinate the financial management of the three water-based utilities so that utility rate increases are distributed over time.**	
	Strategy 4A1	Conduct regular financial studies, coordinated with other water resource utilities and potentially including LOTT.
Objective 4B	**Manage utility rates and connection fees consistent with the City's guiding principle of growth paying for growth.**	
	Strategy 4B1	Update utility rates and general facility charges (GFCs) to reflect costs of providing needed services, while looking for opportunities to improve the equitable distribution of charges.
	Strategy 4B2	Understand the actual costs of providing service to STEP system customers.
Objective 4C	**Use computer-based asset management systems in order to minimize infrastructure life-cycle costs while maintaining a consistent level of service.**	
	Strategy 4C1	Continue a pipeline condition rating program which tracks the physical integrity of the wastewater pipe system.
	Strategy 4C2	Inspect maintenance holes consistent with the Maintenance Hole Assessment Certification Program for condition rating.
	Strategy 4C3	Based on pipe and maintenance hole condition rating outcomes, complete priority repairs and replacements of pipes and structures.
	Strategy 4C4	Inspect and condition rate lift stations and STEP systems on a regular basis.
	Strategy 4C5	Based on lift station and STEP system condition ratings outcomes, complete priority repairs and replacements of pumping infrastructure.
Integrated Water Resources Goal Water resource utilities are planning together for long-term environmental, economic and social changes.		
Objective 5A	**Integrate Water Resource activities that share common goals, resources and/or assets.**	
	Strategy 5A1	Coordinate public education activities with the Drinking Water and Storm and Surface Water Utility.
	Strategy 5A2	Allow and promote greywater subsurface irrigation alternatives in concert with Thurston County.
Informational Goal Customers and the community are informed about and involved in wastewater management activities.		
Objective 6A	**Keep customers and the community informed and involved.**	
	Strategy 6A1	Update and expand the Utility's website and other media to disseminate information consistent with the objectives of this Plan.
	Strategy 6A2	Coordinate customer and community education efforts with the other water resource utilities, LOTT and Thurston County Environmental Health.
	Strategy 6A3	Provide adequate resources for public education and involvement.

1.4 Summary of Capital Projects

Table 1.3 lists all of Capital Projects identified in Chapter 10 that are scheduled to be constructed in the next six years. For a complete list of projects for the 20-year planning period, see **Chapter 10**.

Table 1.3 Six Year List of Capital Projects			
Project Name	**Description**	**Cost ($K)**	**Timing**
Program 9021– Asphalt Overlays			
Asphalt Overlay	Adjust maintenance hole rims et. al. in street right-of-way	$14	Every 3 years
Program 9703 – Replacement and Repairs			
Prioritized Repairs	Major repairs using trenchless technologies	$593	Annual
Spot Repairs	Islolated open cut repair work	$134	Annual
Maintenance Hole Repair and Replacement	Addressing structural deficiencies and leaks	$134	Every 3 years
Side Sewer Repairs	Repair City-owned sewer laterals in right-of-way	$30	Annual
STEP Rehabilitation Equipment	Provides equipment needed for STEP system rehabilitation	$233	Annual
Asphalt for Sewer Repairs	Provides asphalt for roadway restoration after sewer repairs	$29	Annual
Program 9806 – Lift Stations			
Old Port 1 Construction	Upgrade existing lift station and install new force main	$1607	2020
Miller and Central Upgrade Construction	Upgrade existing lift station and install new force main	$940	2020
Miller and Ann Upgrade Design	Design upgrades to existing lift station	$110	2020
Miller and Ann Upgrade Construction	Upgrade existing lift station	$455	2021
Rossmor Upgrade Design	Design upgrades to existing lift station and new force main	$228	2021
Rossmor Upgrade Contruction	Upgrade existing lift station and install new force main	$948	2022
Old Port II Upgrade Design	Design upgrades to existing lift station and new force main	$354	2023
Old Port II Upgrade Construction	Upgrade existing lift station and install new force main	$1475	2024
Roosevelt & Yew Upgrade Design	Design upgrades to existing lift station and new force main	$292	2025
Program 9808 – Sewer System Planning			
Televising and Condition Rating	Ongoing pipe condition monitoring work	$29	Annual
Force Main Condition Assessment	Force main condition monitoring activities	$38	Annual
Asset Management Implementation and Maintenance	Roll out and ongoing maintenance of City Works assess management software system	$29	Annual

Project Name	Description	Cost ($K)	Timing
Program 9809 – Pipe Extensions			
Gravity Sewer Extensions	Provides prioritized extensions of gravity sewer system	$575	2025
AC Force Main Upgrades, Phase I	Replacement of existing AC force mains	$1,035	2025
Program 9810 – Pipe Capacity Upgrades			
4th Ave Sewer	Install new gravity main to increase system capacity	$1,550	2021
Jefferson St Sewer (Phase 1)	Install new gravity main to increase system capacity	$2,230	2023
Program 9813 – Onsite Sewage System Conversions			
Neighborhood Sewer Program	Extension of public sewer system into neighborhoods	$426	Annual
Program 9903 – Infrastructure Pre-Design and Planning			
Pre-Design	Miscellaneous annual projects	$250	Annual
Total 6-year Capital Facility Plan		$23,860	
Average Annual Capital Facility Plan		$3,977	

Chapter 2
Background Information

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CHAPTER 2 – BACKGROUND INFORMATION

This chapter provides basic planning and physical environment information as context for discussion in the following chapters. The Wastewater Utility uses community trends in land use, population and demand for sewer service as the basis for projecting wastewater (also known as sewage) flows and future wastewater infrastructure and program needs. The physical topography dictates to a certain extent the types of sewer collection and conveyance systems that are most appropriate for each basin within the Sewer Service Area.

This chapter also gives an overview of the state and federal regulatory environment associated with planning, constructing, operating and maintaining a wastewater system; a brief discussion of other plans that relate to water-based resources in this community; and some of the agreements in place among the LOTT Clean Water Alliance (LOTT) partners that relate to wastewater. LOTT stands for Lacey, Olympia, Tumwater and Thurston County, the four LOTT partners.

2.1 Sewer Service Area

The City of Olympia is located on Budd Inlet at the southern end of Puget Sound. The Utility's Sewer Service Area (see Figure 2.1) includes:

- 20 square miles inside the City limits,
- Its Urban Growth Area (UGA) (approximately six square miles in unincorporated Thurston County),
- The Evergreen State College,
- Several areas in the Cities of Tumwater and Lacey for which service agreements have been executed, and
- A small area outside its western urban growth boundary which received sewer service before the boundaries were established under the Growth Management Act.

Appendix J includes a larger scale map showing the Sewer Service Area.

Many neighborhoods and individual lots within the City and its UGA are still using septic systems, also known as onsite sewage systems (OSS). See **Chapter 4** for a discussion of OSS, and current City and Thurston County regulations regarding them.

The Sewer Service Area is divided into six major basins, also shown in Figure 2.1, to facilitate planning strategies. **Chapter 5** discusses each basin in more detail, including the characteristics and challenges associated with each of them.

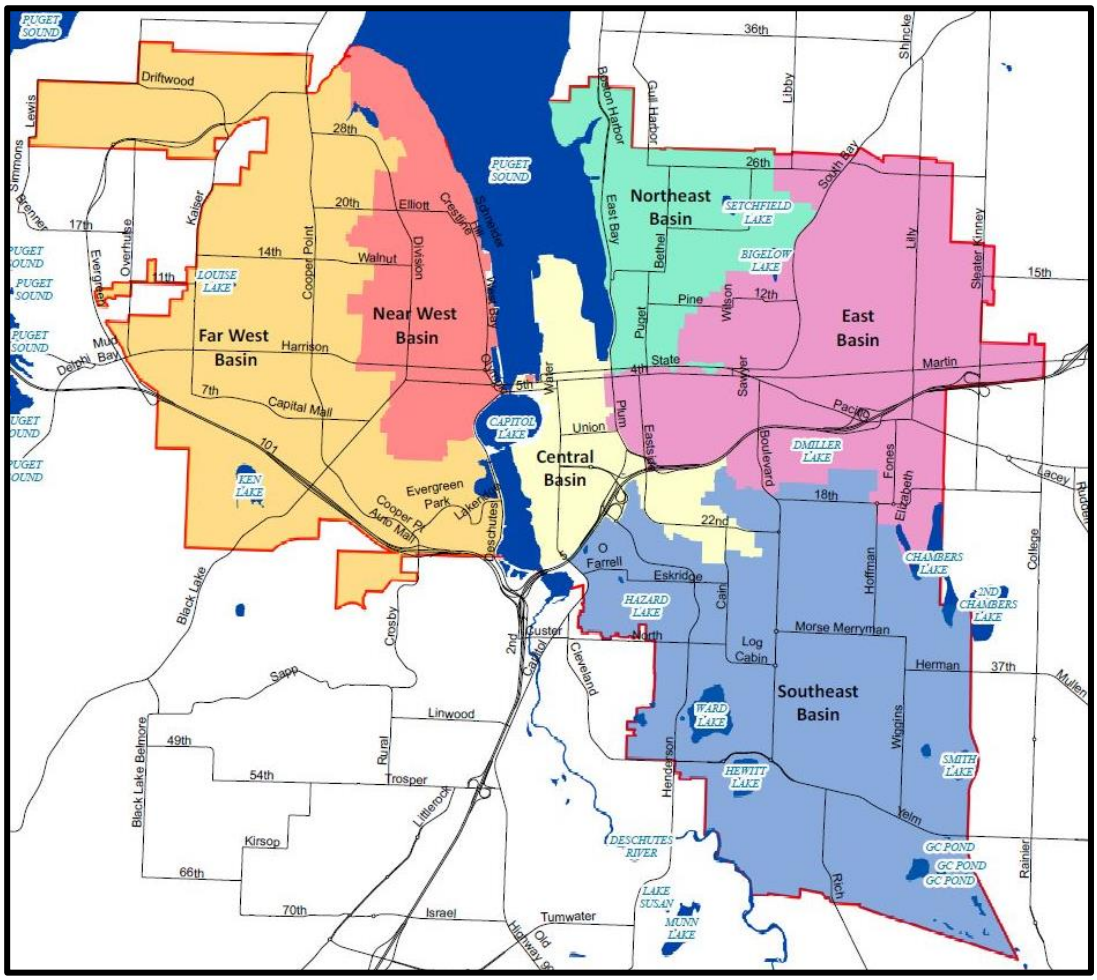

Figure 2.1 Sewer Service Area and Regional Basins [needs to be updated by Kira]

2.2 Population and Land Use

Population and Demand for Sewer Service

Population data in this Plan is based on data published by the Thurston Regional Planning Council (TRPC) and electronic source data obtained from the TRPC. Historic population for the City of Olympia is shown in Table 2.1. Table 2.2 and Figure 2.2 show population forecasts. Given current wastewater policies and regulations, the vast majority of new population in Olympia will be served by sewer.

Table 2.1 Olympia and UGA Historic Population				
	2005	**2010**	**2015**	**2018**
City	43,330	46,513	51,020	52,490
UGA	10,980	11,797	11,910	12,370
Total	54,310	58,310	62,930	64,860

Table 2.2 Olympia and UGA Population Forecast					
	2020	**2025**	**2030**	**2035**	**2040**
City	55,170	60,770	65,670	68,460	71,900
UGA	12,680	13,260	14,270	15,940	16,710
Total	67,850	74,030	79,940	84,400	88,610

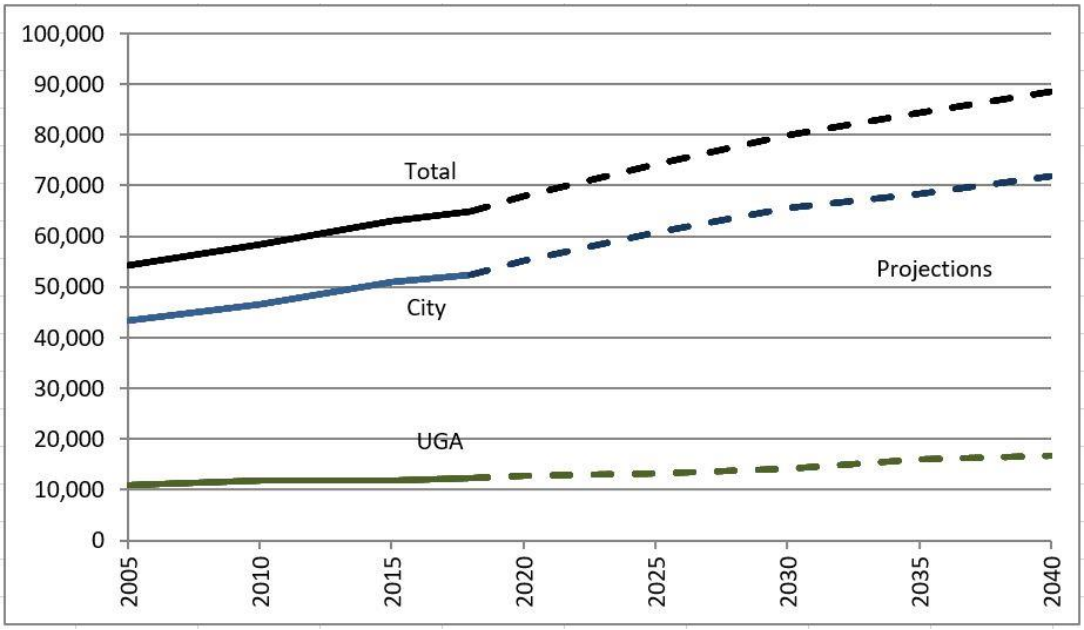

Figure 2.2 Historic Population and Projections

Land Use Trends

From 2013 to 2018, construction activity has been steadily increasing. In Olympia, near term growth projections indicate steady growth in residential and commercial construction. In 2018, 35% percent of new home construction was single family residential and 65% multifamily, based on the number of equivalent residential units.

Projected Growth Patterns

While there are no clear trends as to growth in one particular area of the City, Thurston County Regional Planning Council data on housing starts and population indicate that growth in the near term (one to six years) will continue to be focused in urban areas, rather than rural areas of Thurston County. While most new housing starts will continue to be single family residential, there will be an increase in the density of housing and numbers of multifamily housing units constructed, especially in the UGA.

2.3 Wastewater Flows

Demand for sewer service is calculated using a value called an "Equivalent Residential Unit" (ERU). ERUs create a common base for estimating the amount of wastewater generated from both residential and commercial sources. Olympia uses data provided by its utility billing section and LOTT to calculate the number of ERUs served and the average winter wastewater flow per single family residence. These calculations generate an average winter wastewater flow of about 130 gallons per day per single family residence.

ERUs are used to plan infrastructure needs and define billing rates. Combining these typical wastewater flows with projections of future connections allows us to evaluate wastewater system capacities and needs. Projected growth data provided by the Thurston Regional Planning Council (TRPC) is used to compute the projections of future ERUs in Table 2.3.

Table 2.3 ERUs for Olympia's Sewer Service Area[1]

	2015	2020	2025	2030	2035	2040
Single Family ERUs	13115	13631	14770	15498	16326	17286
Multi-Family ERUs	7160	7909	8989	9717	10580	11611
Commercial	6214	6792	7461	7909	8387	8610
Total ERUs	26489	28332	31220	33124	35293	37507
% Increase	N/A	7%	10.2%	6.1%	6.5%	6.3%

[1] Based on growth projections from TRPC, and data from LOTT and the City's utility billing.

Table 2.4, summarizing recent historical flows, indicates that wastewater generation has been fluctuating since 2013. Steady wastewater generation even as Olympia's population grows reflects the effectiveness of water conservation practices. For more information regarding basin-specific flows, including wet weather flows, see LOTT's most recent Annual Capacity Reports. For more information about Olympia's water conservation efforts, see the 2015-2020 Water System Plan.

Table 2.4 Olympia Wastewater Flows (MGD)[1]					
	2013	2014	2015	2016	2017
Average Daily Base Wastewater Flow, MGD	4.14	4.31	4.25	4.52	4.34
Average Peak Hour Flow, estimated MGD[2]	24.8	26.7	26.4	28.0	26.9

[1] Source: LOTT 2017 Annual Capacity Reports.
[2] Based on LOTT's calculation for Olympia of 6.2 as the average ratio of Peak Hour Flow to Base Flow.

2.4 Physical Setting

Water Resource Inventory Area

The City's entire Sewer Service Area is within Water Resource Inventory (WRIA) Area 13 – Deschutes. This includes the portions of the Sewer Service Area within the Eld Inlet and Henderson Inlet watersheds on the west and east sides of Olympia. The Washington Department of Ecology's initial intent for the WRIAs was to complete drainage basin-specific assessments in order to better understand the relationships between climate, surface water and groundwater in a given area. Elements of the initial assessment, completed in 1995, and the extensive documentation and ongoing research that has followed, include water withdrawals and allocations, hydrology, water quality, and riparian values such as fisheries habitat.

Past and ongoing efforts related to water quality and habitat in WRIA 13 include, but are not limited to, establishing seasonal instream flow requirements for the Deschutes River, and characterizing water quality degradation and how to limit or reduce it. Water quality issues and constituents of interest include temperature, pH, fine sediment, dissolved oxygen, fecal coliforms, and nutrients such as nitrogen and phosphorus. These have had an adverse effect on the health of the lower reaches of the Deschutes, as well as most of the urban watersheds within the Cities of Lacey, Olympia and Tumwater.

As a result, the Department of Ecology, with stakeholder input, is in the process of establishing Total Maximum Daily Loads (TMDLs) for some of these constituents, under a process established by Section 303(d) of the federal Clean Water Act. This process has a direct relationship to the issues of OSS management (see **Chapter 4**), discharge of treated effluent into Budd Inlet, and potentially groundwater recharge of treated water (see the LOTT discussion in Section 3.6). In 2015, a TMDL was completed for the Deschutes River. The Deschutes TMDL requires the City to take action related to reducing fecal coliform and nutrients. The Budd Inlet, Capitol Late and direct tributaries portion of the TMDL is still in progress.

In addition, the Henderson Inlet Watershed Management Area has been established to address ground and surface water issues that have impacted shellfish and other species. A TMDL for Henderson Inlet was completed in 2008. Actions required by the City included addressing both fecal coliform and nutrients. A TMDL was also completed for Totten, Eld and Little Skookum Inlets in 2006. Green Cove Creek is a tributary to Eld Inlet. It did not require any actions by the City. See **Chapter 4** for further information

Geology and Soils

Geology in Olympia and the rest of Thurston County is the result of glacial activity in Puget Sound. Receding glaciers left the land dotted with lakes, ponds and materials called glacial till or glacial drift, deposited during successive glacial periods. This material varies from fine particles to large rocks and is generally permeable, with the capacity to absorb the 50-plus inches of annual precipitation.

However, soil characteristics present challenges for both gravity sewers pipes and OSS. The 1990 Soil Survey of Thurston County Washington identified 30 types of soil within the urbanized Thurston County UGA (U.S. Department of Agriculture Soil Conservation Service, 1990). Only about one percent of the

county land area has soils that meet all criteria for ideal functioning of OSS (Sandison, 1996). Soils in most of Olympia's UGA are either too porous, too close to groundwater, or too close to underlying impermeable layers to allow ideal onsite treatment of wastewater. During winter months, many soils are occasionally or consistently saturated.

Construction of gravity sewer pipes is influenced by soil texture, depth to the water table, and linear extensibility (shrink-swell potential), which can influence soil stability. Depth to the seasonal high water table, flooding and ponding may restrict the period when excavation can be done, and slopes create more difficulty when using machinery. The areas with unfavorable soil conditions may limit installation of deep sewer pipes without major soil reclamation, special design or expensive installation procedures.

In some portions of the City's Sewer Service Area, especially west and southwest of Ken Lake, there is very little soil on top of the impermeable basalt layer. Soils there are inappropriate for OSS and installation of gravity sewer pipes is difficult and expensive.

See **Chapter 4** for more information on soils and groundwater, and their impacts on OSS.

Topography

Thurston County's topography is characterized by coastal lowlands and wooded prairies up to the Cascade foothills. In general, Olympia's topography slopes to downtown, where the Budd Inlet Treatment Plant is located. Land elevation within and between neighborhoods varies appreciably, often creating topographic barriers for the gravity conveyance of wastewater. To overcome these barriers, the Utility operates 31 sewer lift stations and approximately 1,800 STEP systems that pump effluent from individual properties to the wastewater system. Approximately 300 privately owned and operated grinder pumps provide a pressurized service connection to the City's wastewater system.

Climate

Winter weather in Olympia is temperate, wet and generally overcast. Summer weather is moderate and comparatively dry. The average annual range in temperature is relatively narrow, from an average low of 40 degrees (Fahrenheit) to an average high of 60 degrees. Monthly average low and high temperatures vary from 32-50 degrees and 44-77 degrees, respectively.

The average annual precipitation for Olympia is 51 inches. During the wet season, generally from October to May, storms usually arrive from the southwest and continue north into the Puget Sound area. Most precipitation occurs during November, December and January (averaging 8.2, 7.9 and 7.6 inches per month, respectively), with an occasional Arctic storm that brings freezing temperatures, hail or sleet, freezing rain or snow.

Water Supply

Olympia depends on groundwater for its drinking water supply. About 70 percent of Olympia's water comes from McAllister Wellfield, located about 10 miles east of the city. Water leaves the McAllister Wellfield through a 36-inch transmission main and is pumped to the Meridian Storage Tanks about a mile west of the Wellfield. The water then flows by gravity from the storage tanks through the transmission main for an eight-mile journey to the storage tanks on Fir Street and 7th Avenue. From these storage tanks, the water is pumped and piped throughout the city.

The City has six additional water supply wells. Three are on the west side of Olympia: two at Allison Springs and one on Kaiser Road. Three wells are in southeast Olympia: one on Hoffman Road, one at Shana Park and one near the Indian Summer Golf Course. Some utility customers have their own water wells and therefore do not receive City water. The 2015-2020 Water System Plan provides complete information on Olympia's water supply.

2.5 State and Federal Regulations

Utility services are planned and implemented within a complex framework of statutes, regulations, plans and policies adopted by federal, State, County and City governments and intergovernmental agreements with neighboring jurisdictions. Below are brief discussions of the more important programs and regulations. Please click on the appropriate link for more information.

Clean Water Act and Department of Ecology

The federal Clean Water Act, 33 U.S.C. §1251 et seq. (1972), forms the basis for regulatory standards regarding discharges of pollutants into surface waters. Additionally, the Safe Drinking Water Act, 42 U.S.C. §300f et seq. (1974), protects and regulates all potential sources of drinking water, both surface and groundwater.

The United States Environmental Protection Agency (EPA) is responsible for enforcing the provisions of both the Clean Water Act and Safe Drinking Water Act, through programs such as the National Pollutant Discharge Elimination System permit program, authority for which has been delegated to the Department of Ecology (Ecology) in Washington State. LOTT's Budd Inlet Treatment Plant holds the current NPDES permit that covers the City's wastewater system. The permit is available for viewing on their website at https://lottcleanwater.org/. EPA has also delegated authority to Ecology for approval of wastewater plans and specifications. Washington Administrative Code (WAC) 173-240-050, Department of Ecology Requirements for General Sewer Plans, lists specific information that wastewater plans should address for submittal to Ecology for approval (see Appendix A).

Under RCW 90.48.110(2), Ecology has delegated to the City of Olympia responsibility for review and approval of engineering reports, plans and specifications for new wastewater infrastructure within its Sewer Service Area. Engineering specifications for the use and construction of sewer infrastructure are provided in Ecology's Criteria for Sewage Works Design.

Ecology has also authorized the City of Olympia to issue permits for discharge into the wastewater system (WAC 173-208). These are regulated under the Industrial Pretreatment Program jointly administered by LOTT under its NPDES permit and the City through Olympia Municipal Code 13.20.

Growth Management Act

The City of Olympia is required by the Growth Management Act (GMA, RCW 90.48) to plan for 20 years of future growth. State-mandated growth management planning is designed to produce denser urban areas while protecting the rural character and natural resources of unincorporated areas. Consistent with the GMA, the Utility manages its infrastructure capacity to accommodate projected development within the City and its UGA. Sewer extensions outside the UGA are normally not allowed under the GMA without a rigorous demonstration of a need to address an urgent public health threat.

SEPA

SEPA, the State Environmental Policy Act (RCW 43.21C), requires the City to consider the potential environmental impacts of a proposal. Plans such as this one are considered non-project, or program, proposals and do not go through as rigorous an environmental review as do specific project proposals.

As a lead agency under SEPA, the City identifies the potential impacts of sewer service associated with proposed new development and measures to mitigate any potentially negative impacts. See Appendix I for the SEPA review and determination for this Wastewater Management Plan.

Washington Department of Health

The Washington State Department of Health is this state's regulatory authority for most issues related to drinking water. In addition, the Department of Health has authority for approving OSS (WAC 246-272), but has delegated the authority to approve all OSS with a design flow of less than 3,500 gallons per day to the

Thurston County Public Health and Social Services Department. Criteria for OSS approval include minimum lot size and setbacks from sources of drinking water or other water resources. See **Chapter 4** for more information.

Greywater Subsurface Irrigation Systems

The Washington State legislature recognizes the need to conserve groundwater and surface water supplies, reduce the cost of treating wastewater and use sustainable building practices to conserve potable water. The legislature determined that the Department of Health shall adopt rules for greywater reuse that do not compromise public health or cause unacceptable environmental impact.

> *In 2006, enacted legislation required the Washington State Department of Health to adopt rules for subsurface greywater irrigation by December 31, 2010. The rule, chapter 246-274 WAC, establishes requirements that provide building owners with simple, cost-effective options for reusing greywater for subsurface irrigation. The chapter is intended to encourage water conservation and to protect public health and water quality.*
>
> - Quoted from the Preface of the Washington State Department of Health's guidance document titled "Tier Two and Three Greywater Subsurface Irrigation Systems" (June 2012).

Tier 1 greywater systems are the simplest with up to 60 gallons per day of gravity flow. Tier 2 systems distribute up to 3,500 gallons per day, and typically rely upon pressurized flow. Allowable greywater sources for both Tiers 1 and 2 systems are bathroom sinks, showers, bathtubs and clothes washing machines. Tier 3 systems are similar to Tier 2, but typically use greywater from sources such as non-laundry utility sinks, kitchen sinks and dishwasher water.

The most likely scenario for implementing greywater reuse for subsurface irrigation is for property owners already connected to City sewer to divert some of their greywater, on a seasonal (when it is not raining or freezing) and occasional basis for watering plants.

According to 246-274 WAC, Thurston County may either adopt the new WAC by reference, or write and adopt local codes to address greywater re-use, consistent with the WAC. Until Thurston County adopts code language addressing this, greywater reuse for subsurface irrigation is not allowed.

Residents can get an onsite greywater sewage system approved under 246-272A WAC, for example if they have a composting toilet and still need to treat/dispose of the greywater. Under current City and Thurston County regulations, residents would only be able to do this in locations where it is acceptable to site OSS. However, greywater reuse is not allowed.

2.6 Local Regulations and Design Standards

Olympia Municipal Code

The Olympia Municipal Code (OMC) addresses wastewater issues in the following chapters and sections:

3.04.750	Sewer Capital Improvement Fund
3.20	Local Improvement Districts
4.24.010	Rates
13.08	Sewers
13.20	Wastewater System (Pretreatment)
17.44	Subdivisions – Improvements
18.04.080E	Developments without Sewer Service

Other chapters of the OMC, for example those addressing Zoning and Building Codes in Chapters 16 and 18, also include regulations that directly or indirectly address issues related to providing sewer service.

Olympia Engineering Design and Development Standards

The City of Olympia's design and development standards regarding wastewater infrastructure are contained in **Chapter 7** of the Engineering Design and Development Standards (EDDS). The EDDS are updated every year, at which time they address inconsistencies in language, new industry standards, input from local businesses and related professionals, and comments from local and state jurisdictions, private citizens and other stakeholders.

WAC 173-240, Submission of Plans and Reports for Construction of Wastewater Facilities, includes in subsection .040, Review Standards, a requirement that plans and reports be "reasonably consistent" with the Department of Ecology's "Criteria for Sewage Works Design" manual. The City's EDDS fulfills this requirement.

Article IV of the Sanitary Code for Thurston County

Article IV of the Sanitary Code for Thurston County includes "rules and regulation of the Thurston County Board of Health governing treatment and dispersal of sewage." Article IV protects public health through regulating the "location, design, installation, operation, maintenance, and monitoring of OSS…" through the authority granted in ***Chapter 70.05 RCW*** and ***246-272A WAC***. In addition, Section 21.2.8 of Article IV states that septic proposals must be "consistent with requirements in city sewerage plans…depending on the project's location." See **Chapter 4** of this Plan for more information.

2.7 Related Plans

Following are a number of plans and guidance documents that relate directly or indirectly to the Wastewater Management Plan.

Olympia Comprehensive Plan

In addition to its sustainable community vision, the Comprehensive Plan makes commitments to the future through its goals and policies. Specific utility activities are guided by Comprehensive Plan goals and policies established in the Growth Management, Environment, Public Utilities and Services, and Public Education sections of the Comprehensive Plan.

Olympia Capital Facilities Plan

The City's Capital Facilities Plan (CFP) is updated every year to reflect six and 20-year priorities for public infrastructure construction. Wastewater projects identified and prioritized by this Plan (see **Chapter 10**) are more fully defined, funded and implemented through the City's Capital Facilities Planning and yearly budgeting processes.

Thurston County Sewerage General Plan

The 1990 Thurston County Sewerage General Plan for Unincorporated Urban Growth Management Area promotes the orderly growth of the urban area, addresses the ownership of sewer pipes, timing of construction, and hookup and payment policies for the unincorporated UGA.

This plan requires that areas within the short-term UGA (defined in the document) be developed with sewer service or community OSS, and specifies that areas within the long-term UGA (also defined in the document) need not be served by sewer at the time of construction. Since 1990, the short-and long-term UGAs have been combined into one UGA which, despite having somewhat different boundaries then those originally developed by 1990, is regulated under the previous policies for the short-term growth area. Under this approach, community OSS are allowed in the UGA. In the long-term, sewer service is to be provided. Properties connecting to sewer or community OSS are required to annex or sign a no-protest annexation agreement. The plan also defines circumstances under which sewer service can be extended to areas outside the UGA.

While the delineation between long-term and short-term UGAs is no longer in effect, the Thurston County General Sewerage Plan continues to guide some of the sewer policies relevant to development in the UGA, particularly when a development plan may include using a community OSS. Also see the 1992 General Sewerage Agreement for the Unincorporated Urban Growth Management Area.

Olympia 2015 Water System Plan

The City of Olympia delivers high quality drinking water to nearly 55,000 people through approximately 19,000 service connections. The 2015 Water System Plan presents both a 50-year vision and a six-year plan for efficiently using regional water resources to ensure safe and sustainable drinking water for the City's growing needs.

The Plan is used by City staff to accomplish goals around efficient use and protection of current water supplies to ensure future supplies, maintain a reliable water system infrastructure, and manage the Drinking Water Utility in a fiscally responsible manner. The Plan also highlights past accomplishments and current priorities.

Issues covered in the 2015 Water System Plan include actions to protect groundwater quality and promote water conservation, and promote the use of reclaimed water.

Reclaimed water, addressed in **Chapter 7** of the 2015 Water System Plan, is part of the Drinking Water Utility's water conservation strategy to ensure regional water supplies are used efficiently. After the LOTT Budd Inlet Treatment Plant generates reclaimed water to Class A standards, the City purveys it to four Olympia customers, primarily for irrigation. LOTT also infiltrates Class A reclaimed water at its Hawks Prairie groundwater recharge facility in Lacey, outside City limits. The City's Reclaimed Water Program, begun around 2005, is implemented through Olympia Municipal Code (OMC) 13.24, state and City standards, and individual End User Service Agreements. Reclaimed water staff are also guided by a reclaimed water system expansion plan and procedures manual.

The City of Olympia, in collaboration with the City of Lacey and LOTT, constructed the Woodland Creek Groundwater Recharge Facility located in Lacey's Woodland Creek Community Park. The 4.6-acre facility recharges between 0.3 and 1.0 million gallons of reclaimed water per day. The facility fulfills water rights mitigation requirements to replenish depletions of flows to Woodland Creek. Olympia's participation in this facility pertains to the McAllister Wellfield water rights.

The Washington State Department of Health (DOH) requires the City to update its water system plan every six years. DOH must approve the plan for the City to be in compliance with water system planning requirements. The next update is scheduled for 2021.

1996 North Thurston County Coordinated Water System Plan

Thurston County oversees a planning process that coordinates and regulates water system services within the urban area of North Thurston County and designates Urban Water Supply Services Areas. Policies and recommendations contained in this 1996 document are intended to "encourage the effective coordination and development of water systems capable of meeting domestic and fire protection water requirements of the property owners and residents of the North Thurston urban area."

Olympia 2017 Storm & Surface Water Plan

The role of the City's Storm and Surface Water Utility was bolstered in 1990 with the following mission:

To provide services that reduce flooding, improve water quality, and enhance aquatic habitat in Olympia. These services reflect community values, are efficient and cost-effective, and satisfy regulatory requirements and Olympia Comprehensive Plan goals and policies.

The 2017 Storm & Surface Water Plan guides the utility's action in regards to flooding, water quality and aquatic habitat management. Its illicit discharge detection and elimination (IDDE) program includes

identifying sources of wastewater connected to the stormwater conveyance and discharge system, and eliminating them in coordination with the Wastewater Utility.

Sustainable Thurston

Developed by the Thurston Regional Planning Council, Sustainable Thurston is intended to "create a vision for how the Thurston Region will look, function and feel over the next 20 – 30 years." Finalized in December of 2013, the plan is titled "Creating Places, Preserving Spaces: A Sustainable Development Plan for the Thurston Region".

While Sustainable Thurston is not a regulatory or state-mandated planning effort, it explores many issues including the community's water resources. The plan includes identified challenges and opportunities related to water quality and OSS, as well as sewer collection, treatment and disposal. Information developed as part of this process is aiding implementation of several utility goals – for example, addressing basin-specific water quality issues, and sustainably expanding sewer service into areas within the City and its UGA which are currently undeveloped or served by OSS.

Olympia Sea Level Rise Response Plan

Downtown Olympia is currently vulnerable to flooding during high tides and storm events. With 12-inches of sea level rise, a 100 year flood event could occur every other year. To protect the 450-acre downtown area from increasing sea levels, the City partnered with the Port of Olympia and LOTT to develop the Olympia Sea Level Rise Response Plan (SLR Plan).

Development of the SLR Plan included a climate science review and a vulnerability and risk assessment. Five wastewater pump stations are vulnerable to flooding (at varying levels of sea level rise) and the Budd Inlet Treatment Plant is vulnerable to overland flooding at approximately 18 inches of sea level rise. In addition, flooding of downtown's combined sewer system could convey floodwaters to the Budd Inlet Treatment Plant and overwhelm the plant, resulting in untreated or partially treated wastewater discharging directly to Budd Inlet through LOTT's marine outfalls.

The SLR Plan provides comprehensive strategies for minimizing and preventing flooding to downtown Olympia, including the recommendation to incorporate sea level rise into other city planning documents.

This Plan's climate change goals, objectives and strategies are consistent with recommendations contained in the SLR Plan. See **Chapter 9** for additional information.

Thurston Regional Climate Mitigation Plan

In 2018 Olympia entered into an interlocal agreement with the cities of Lacey and Tumwater and Thurston County to develop a regional climate mitigation plan. Phase I of the work has already been completed and resulted in the approval of a new communitywide emissions reduction goal by all project partners: To reduce communitywide emissions 45% below 2015 levels by 2030 and 85% below 2015 levels by 2050.

Phase II of the mitigation planning process will focus on developing and analyzing the strategies necessary to ensure that each partner jurisdiction hits the shared emissions targets. The Thurston Climate Mitigation Plan is expected to be completed in June 2020.

This Plan includes strategies for reducing the Utility's greenhouse gas emissions and supports implementing additional strategies consistent with the Thurston Climate Mitigation Plan, when completed. See **Chapter 9** for additional information.

2.8 Governmental Agreements

A number of agreements are in place among the four local jurisdictions that make up LOTT. Below are brief summaries of some of the more important ones.

1992 Agreement for the Implementation of the Thurston County Sewerage General Plan for the Unincorporated Urban Growth Management Area

This agreement serves as the means to implement the 1990 Thurston County Sewerage General Plan. It clarifies ownership and payment policies, procedures and responsibilities for sewer service and community OSS. The agreement anticipated "eventual interception of individual and community onsite systems" within the UGA by gradually constructing regional pipe systems and connecting residences. Key provisions of the agreement are:

- Establishing that Olympia, Lacey and Tumwater are the primary providers of sewer service and other utilities in their UGAs, with authority to establish policies and development standards applicable to the unincorporated County within their UGA.
- Procedures for the joint review and annexation of development projects within the UGA.
- Agreement by the three cities to own and operate community systems, including community OSS and STEPS, within their service areas. This provision ensures consistent wastewater services to all customers as mandated by the Growth Management Act. The agreement establishes the requirements under which the cities will accept responsibility for community systems and will serve as the permit holder for these systems.

1999 Interlocal Cooperation Act Agreement for Wastewater Management

The Interlocal Cooperation Act Agreement for Wastewater Management by LOTT was executed on November 5, 1999 and adopted by ordinance January 24, 2000. This agreement provided for a new governance structure to carry out the regional Wastewater Resource Management Plan and set the stage for consolidation of the ownership and management of all joint facilities under the management and control of a new LOTT organization. It superseded the 1976 agreement establishing the LOTT Partnership, under which ownership and operation of the joint facilities was handled by Olympia. The new facilities implemented pursuant to this agreement, together with those developed as joint facilities under the 1976 agreement, are operated for the benefit of all Partners.

Besides describing how LOTT is managed, the agreement addresses a number of issues, including collection of rates and fees, flow reduction goals, pretreatment requirements, allocation of costs, and enforcement activities.

Wastewater flows from the three local municipalities are conveyed to LOTT treatment facilities for treatment, re-use and /or discharge to receiving waters. All of Olympia's wastewater flows are treated by LOTT's Budd Inlet Treatment Plant in downtown Olympia.

The Budd Inlet Treatment Plant provides tertiary treatment including denitrification. Long-range planning for upgrades and expansions seeks to complete projects incrementally as needed by growing populations. LOTT is overseen by an elected-official Board and a technical sub-committee. At a staff level, projects and programs are well-coordinated with the local jurisdictions including Thurston County. More information on LOTT is provided in **Chapter 3**.

Intergovernmental Contract for Inflow and Infiltration Management and New Capacity Planning

This contract, executed in 1995 and updated in 1999, outlines a strategy for Olympia to first reduce, then limit, the amount of infiltration and inflow (I&I) entering the collection system, with financial participation from LOTT. I&I from groundwater and stormwater unnecessarily consume pipe and treatment plant

capacity. The contract is included as Exhibit J of the 1999 Interlocal Cooperation Act Agreement described above. Previously, the City has had an I & I reduction program, through which it fulfilled the terms of this contract. Additional I&I reduction projects may be implemented in the future.

Agreement Regarding Joint Wastewater Flow Reduction and Water Conservation

The Interlocal Cooperation Agreement between Thurston County and the Cities of Lacey, Olympia and Tumwater Regarding Joint Wastewater Flow Reduction and Water Conservation Projects was executed in October 2006 for the years 2007 to 2012, and extended through the year 2013 in December 2012. It defines the arrangements for joint management of flow reduction, especially water conservation projects at area schools. This agreement is included as Exhibit K of the 1999 Interlocal Cooperation Act Agreement described above.

Agreement Regarding Utility Mutual Aid

In September 2014, Olympia and the other LOTT partners signed an Interlocal Agreement for Sanitary Sewer Emergency Response Mutual Aid, to enable mutual assistance in the event of a sewer overflow involving assets owned by either LOTT or member jurisdictions.

Under the agreement, Olympia can be called upon to provide certain services to maintain the regional LOTT wastewater management facilities. These services vary from year to year and can include cleaning of the dump basin used by OSS service firms, structure repairs and inspections, as well as other O&M activities.

Currently, the Utility does not have adequate staffing to support programmatic O&M activities for LOTT. At a minimum, services provided to LOTT include availability of staff and equipment during emergencies.

Chapter 3
Current System

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CHAPTER 3 – CURRENT WASTEWATER SYSTEM

Within the City and its Urban Growth Area (UGA), the Wastewater Utility is responsible for collecting wastewater, also known as sewage, from residences and businesses at the point where privately owned pipes enter the publicly owned wastewater system. Wastewater flows through City-owned and maintained sewer infrastructure into larger pipes owned by the LOTT Clean Water Alliance (LOTT) and eventually to LOTT's Budd Inlet Treatment Plant. At the treatment plant, it is treated and either discharged to Budd Inlet, or reclaimed for beneficial uses. City operations and maintenance staff ensure the safe conveyance of the wastewater flows from the City's extensive pipe and pumping systems to LOTT's infrastructure.

Figure 3.1 is a conceptual diagram showing the components of the City's sewer system.

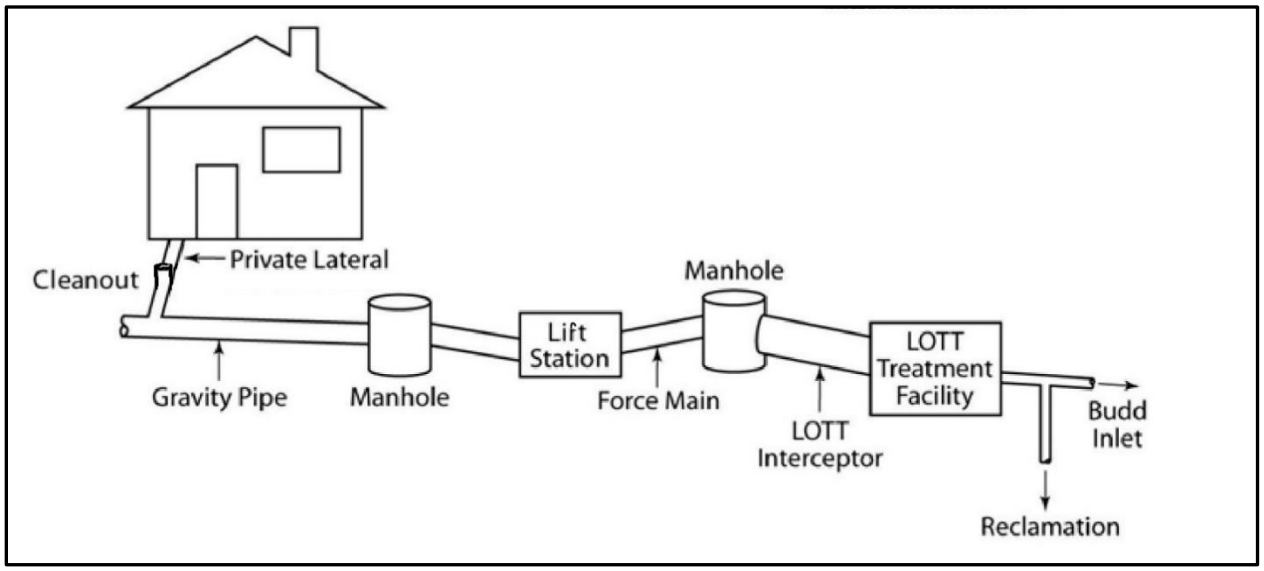


Figure 3.1 Components of the Collection System

Gravity sewer pipes and regional pumps (lift stations) are the conventional way to convey wastewater from homes, businesses and other buildings to central treatment facilities. Wastewater flow in sewer pipes generally follows the street system downhill. If needed it is pumped by a lift station over hills in a force main (pressurized pipe) and then continues flowing by gravity to one of several large LOTT interceptor pipes which convey it to LOTT's Budd Inlet Treatment Plant.

Olympia's wastewater collection system consists of:

- Approximately 187 miles of gravity sewer pipes with 4,000 manholes and 1,100 cleanouts,
- Thirty-one lift stations with 9.5 miles of force mains,
- Approximately 1800 residential and commercial STEP (septic tank effluent pumping) systems with 27.5 miles of STEP force mains, and
- 280+ privately owned grinder pumps with over one mile of grinder force main.

Maintenance of publicly owned infrastructure is a key responsibility of the Wastewater Utility. See **Appendix J** for maps showing wastewater system components. In addition, the Wastewater Utility maintains a database of attributes related to each feature listed above, for example, the diameter of each gravity sewer pipe and the capacity of each STEP tank. Since the adoption of the 2013 Wastewater Management Plan, approximately 3 miles of City owned gravity sewer pipes have been added to the wastewater system, as well as two lift stations and 1.3 miles of force main.

There are also about 4,225 privately owned and managed septic systems, also known as onsite sewage systems (OSS) in Olympia and its UGA. Thurston County and the City of Olympia jointly regulate the permitting and use of these systems. See **Chapter 4** for more details about OSS.

The following sections describe in more detail each of the main components of the wastewater collection system:

- Gravity collection system
- Lift stations and force mains
- STEP systems
- Grinder pump systems

See **Chapter 10** for an assessment of these components and an analysis of their capacity to handle current and projected wastewater flows.

3.1 Gravity Collection System

About 89 percent of the Wastewater Utility customers are served through a gravity sewer connection. Gravity sewer pipes, typically buried beneath the center of public streets, but occasionally located within easements on private land, convey wastewater downhill by gravity. Gravity sewer pipes include side sewers, submains, mains (also known as trunks) and interceptors. A side sewer connects individual buildings to the public sewer system. A submain is a sewer that receives flow from one or more side sewers. A main (or trunk) is a sewer that receives flow from one or more submains. An interceptor is a sewer that receives flow from a number of mains or force mains.

Manholes are located where the gravity sewer pipes join or change direction and at intervals of 400 feet or less to allow access for inspection and maintenance. A cleanout is a pipe with a cap or lid that extends from the surface down to the sewer for cleaning and inspection of pipes. Cleanouts are sometimes located at the upstream end of submains instead of a manhole if the sewer pipe length does not exceed 150 feet. Cleanouts are also located on private property to provide access to side sewers.

Olympia's gravity sewer pipes range in size from six to 42 inches in diameter. The LOTT system has another 18 miles of gravity sewer interceptors in Olympia's Sewer Service Area. **Appendix J** includes detailed mapping of the sewer system.

Table 3.1 summarizes the inventory of gravity sewer pipes (including submains, mains and interceptors), showing diameter, length and materials. Most of the utility's pipes are made of either concrete or polyvinyl chloride (PVC). Since the mid-1970s PVC piping has become the industry standard for sewer pipes. PVC pipe is durable, easy to construct, resistant to corrosion and relatively inexpensive. Recently, high density polyethylene (HDPE) pipe has been promoted as a more environmentally-friendly alternative to PVC pipe because it uses a less toxic manufacturing process than PVC. The Utility will consider the use of HDPE pipe when appropriate. In addition, many of the older sections of the collection system contain pipes made of vitrified clay (VC), asbestos cement (AC), cast iron (CI) and ductile iron (DI). The condition of these pipes varies with age and type of materials.

In the past, all side sewers were owned and maintained by the owner of the property being served. In 2016, to reduce public health and safety problems, the Utility modified the side sewer ownership regulations as follows. If a cleanout exists at the property line or easement boundary, City ownership of a gravity side sewer is from the sewer main to the property line. The property owner owns and maintains the side sewer from the premises to the cleanout at the property line or easement boundary. The property owner is responsible for installing and maintaining the cleanout so it is accessible to the City. If no cleanout exists at the property line or easement boundary, the property owner owns the side sewer from the premises to the sewer main, until the property owner installs a cleanout at the property line or easement boundary. This new policy has solved several problems and has had minimal impact on utility operations.

Table 3.1 Gravity Sewer Pipe Inventory (feet)									
Pipe Diameter (inches)	**Concrete**	**PVC**	**VC**	**AC**	**CI/DI**	**HDPE**	**Steel Trestle**	**Other or Unknown**	**TOTAL**
6	39,172	4,878	14,965	1,335					60,350
8	248,994	396,491	48,294	8,004	5,523	3,800		770	711,876
10	31,231	13,672	10,623		670		215		56,411
12	33,194	22,274	4,406					159	60,033
14			654	1,778	31	1110			3,573
15	21,734	16,124	9,229	109	187				47,383
18	19,132	11,434	1,760		2,052				34,378
20			619	624					1,243
21	1,605	228							1,833
22			584						584
24	4,627	151	465		123				5,366
30	3,189								3,189
36	1,705								1,705
42	884								884
Total length of each type of pipe, and their percentage of the total system length:									
Feet	405,467	465,252	91,599	11,850	8,586	4,910	215	929	988,808
Miles	76.8	88.1	17.3	2.2	1.6	0.9	< 1	0.2	187
Percentage	41%	47%	9%	1%	1%	< 1%	< 1%	< 1%	100%

3.2 Lift Stations and Force Mains

Olympia's rolling terrain requires the use of lift stations (also known as pump stations) to push wastewater over hills through force mains, to the nearest gravity sewer that can carry flows further downstream without pumping. The City owns 31 lift stations. Two of these, Chestnut Village and Mill Pond, and their associated force mains, were constructed since the 2013 Wastewater Plan was adopted. These lift stations were both constructed by private developers in conjunction with new housing developments. One existing lift station, Motel 8, was decommissioned when the wastewater flow was transferred to a new gravity pipe installed by the City of Lacey. In addition, the Utility transferred responsibility for the maintenance of three private lift stations to the owners. Previously, the City was maintaining the lift stations and charging the owners for the cost of maintenance. Table 3.2 shows information on the City-owned lift stations and their force mains. Additional information such as pump sizes and force main lengths is stored in a lift station database. Dedicated operations and maintenance staff oversee the operation of these critical systems.

The lift station system has about 9.5 miles of force mains, ranging from 4 inches to 30 inches in diameter. The Utility's force mains are made of concrete, asbestos cement (AC), polyvinyl chloride (PVC), or high

density polyethylene (HDPE) as shown in Table 3.3. The Utility replaced the majority of the force main serving the East Bay Marina lift station in 2018. The replacement was in response to a portion of the force main being at risk for exposure and failure due to soil erosion on the banks of Budd Inlet.

Within Olympia's Sewer Service Area, LOTT owns and operates another two lift stations and two miles of associated force mains.

Twenty-seven of the Utility's lift stations are of a wet/dry well design with two separate below-grade chambers. The wet well holds the wastewater, and the dry well contains the pumps (usually two, which alternate pumping under normal conditions), controls and electrical equipment. In the other four stations, a pair of submersible pumps is contained within the same wet well chamber as the wastewater, and controls are in a separate panel located above grade or in a vault separate from the wet well.

The results of an assessment of physical condition and analysis of pumping capacity are presented in **Chapter 10** as the basis for determining the need for lift station upgrades.

Since 1996, there has been a significant increase in sewer lift stations, as well as other assets such as commercial STEP systems—over twice as many, with no increase in staffing. During that time, operations staff have leveraged technology and used good maintenance practices to inspect and maintain each new asset as it comes on line. There has not been a CSO for over twelve years. In order to maintain the high level of service needed to provide for public and environmental help, technology and staffing resources will be needed in the future. **Chapter 7** addresses the technical and staffing needs to support these systems.

Table 3.2 Lift Station and Force Main Inventory (listed by year constructed)

	Name	Type	Generator	Force Main Size and Material	Construct Date
1	Division & Jackson	S&L wet well / dry well	No	6" PVC	1957
2A	Water Street 1	Concrete wet & dry wells	Yes	30" RCP	1961
2B	Water Street 2	Concrete wet & dry wells	Yes	18" RCP	1961
3	West Bay	Concrete wet & dry wells	Yes	12" PVC	1961
4	East Bay Drive	Flygt submersible	No	4" AC	1963
5	Black Lake	S&L wet well / dry well	Yes	8" PVC	1966
6	Woodcrest	S&L wet well mounted	No	4"AC	1967
7	Holiday Hills	S&L wet well / dry well	Yes	6" AC	1969
8	Ken Lake	S&L wet well mounted	Yes	4" AC	1969
9	Roosevelt & Yew	S&L wet well / dry well	Yes	6" AC	1970
10	Miller & Central	S&L wet well / dry well	Yes	8" AC	1970
11	Goldcrest	S&L wet well / dry well	Yes	6" HDPE	1970
12	Old Port 1	S&L wet well / dry well	Yes	4" AC	1971

	Name	Type	Generator	Force Main Size and Material	Construct Date
13	Old Port 2	S&L wet well / dry well	Yes	4” AC	1971
14	Jasper & Eastside	Paco submersible	Yes	4” AC	1972
15	Rossmoor	S&L wet well / dry well	Yes	6” PVC	1978
16	East Bay Marina	S&L wet well / dry well	No	4” PVC and 4” AC	1982
17	Ensign Road	S&L wet well / dry well	Yes	10” PVC	1989
18	Woodfield	S&L wet well / dry well	No	4” PVC	1990
19	Kempton Downs	S&L wet well / dry well	Yes	6” PVC	1993
20	Colonial Estates	S&L wet well / dry well	No	4” PVC	1994
21	Division & Farwell	Myers submersible	Yes	4” PVC	1995
22	Miller & Ann	Cornell wet well / dry well	No	6” PVC	1995
23	Springer	Hydronix wet well / dry well	No	6” PVC	1996
24	Cedrona	S&L wet well / dry well	Yes	6” PVC	1997
25	Cooper Crest	S&L wet well / dry well	Yes	6” PVC	2005
26	Mud Bay	S&L wet well / dry well	Yes	8” HDPE	2008
27	Briggs	S&L wet well / dry well	Yes	4” PVC	2008
28	Sleater Kinney	S&L wet well / dry well	No	6” HDPE	2010
29	Yelm Hwy	S&L wet well / dry well	Yes	10” HDPE	2011
30	Chestnut Village	S&L wet well / dry well	Yes	6”PVC	2013
31	Mill Pond	S&L wet well / dry well	Yes	10” HDPE	2014

Table 3.3 Sanitary Sewer Force Main Inventory (feet)						
Pipe Diameter (inches)	**Reinforced Concrete**	**AC**	**PVC**	**HDPE**	**CI/DI**	**TOTAL**
4	0	4,028	9,163	0	153	13,344
6	0	2,894	10,598	3,177	78	16,747
8	0	735	1,946	850	0	3,531
10	0	0	676	7,718	0	8,394
12	0	0	5,919	0	0	5,919
18	121	0	0	0	0	121
30	1,954	0	0	0	0	1,954
Total length of each type of pipe, and their percentage of the total force main system length:						
Feet	2,075	7,657	28,302	11,745	231	50,010
Miles	0.4	1.5	5.4	2.2	< 0.1	9.5
Percentage	4.1%	15.3%	56.6%	23.5%	< 1%	100%

3.3 STEP Systems

A septic tank effluent pump (STEP) system integrates the technologies of septic systems and gravity sewer pipes. A STEP system service at a residence or business consists of a tank where solids are collected and a pump which moves the liquid waste via a low-pressure pipe into the gravity sanitary sewer system for treatment at LOTT's Budd Inlet Treatment Plant. The solids are pumped out regularly, usually at an interval of once every seven years for residential systems, and every one to six years for commercial systems. The pumped solid STEP waste are hauled to the plant for treatment. High quantities of STEP solid waste can cause upsets to the treatment process at the plant.

In low-lying areas or flat terrain, STEP systems have some construction advantages over more expensive gravity sewer pipes and lift stations. Pipes can be buried as shallow as 36 inches, and because they are pressurized and do not rely on gravity to maintain flow they can follow the terrain. Because only liquids are pumped, the pipe can be small diameter. As a result, installation costs are less than gravity systems that typically require deeper and precisely sloped trenching.

However, maintenance costs of STEP systems are typically higher since pumps and associated equipment occasionally require maintenance or replacement and the tanks must be pumped periodically to remove the accumulated solids. In addition, the anaerobic STEP system effluent produces odorous and corrosive gases, namely hydrogen sulfide. As a result, in some cases odor control facilities are needed where these gases are released to air at locations of discharge to the gravity collection system. The corrosive nature of the gases can and has damaged downstream concrete gravity pipes and manholes leading to added maintenance and repairs.

Furthermore, under Washington State regulations, the City owns and maintains STEP systems and will eventually replace them, as needed. City operations and maintenance staff are responsible for these systems. Failure of the STEP system pump or its associated pipe system can result in sewer overflows.

Figure 3.2 is a conceptual diagram of a STEP system. As with OSS, each home, multi-unit residence, or business requires its own STEP system.

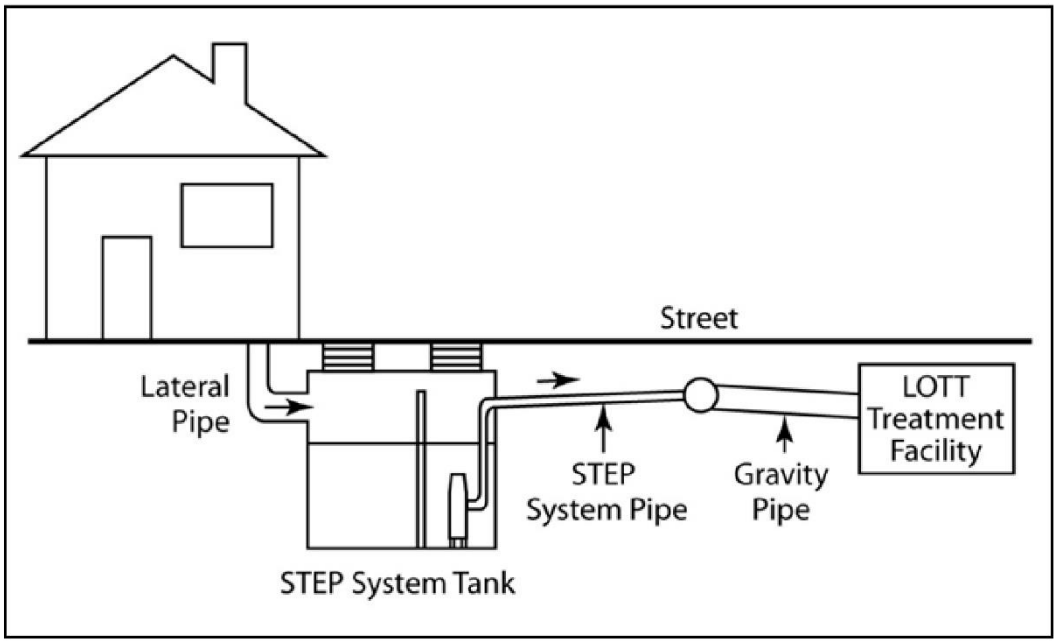


Figure 3.2 Conceptual Diagram of a STEP System

The Utility currently maintains 1,800 STEP systems (including 25 commercial STEP systems) and 27.5 miles of STEP force mains, serving approximately 9 percent of sewer customers. Forty of the residential STEP systems and one commercial STEP system have been constructed since the adoption of the 2013 Wastewater Management Plan.

Since 2013, new STEP systems have typically not been permitted in Olympia's Sewer Service Area. All of the residential developments that were "vested" to use STEP systems are either under construction or have already been constructed. The only new STEP systems allowed to be constructed since 2013 were for infill lots in existing residence subdivisions served by STEP systems, for connections for houses served by OSS. Due to these regulations, no additional STEP force mains have been constructed since 2013.

As a result of a strategy in the 2013 Plan, regulations were changed in 2018 to allow for the use of STEP systems for short plats on properties currently adjacent to an existing STEP force main. This allows for small-scale developments for which the construction of a lift station would not be feasible. At the same time, it continues to restrict the use of STEP systems due to their higher maintenance cost.

The most extensive use of STEP systems is in southeast Olympia. Other areas are located in northeast Olympia along Lilly Road; northwest Olympia along Overhulse Road, 11th Avenue NW and 14th Avenue NW; and along the west slopes of West Bay and Capitol Lake. See **Chapter 5** for more information on the locations and density of STEP connections and mains in each basin.

3.4 Grinder Pump Systems

A grinder pump system consists of a macerating (chopping) type pump that conveys wastewater from a building through a small-diameter pressurized pipe to the City's sewer collection system. The grinder pump is typically located in a tank located on private property. It is similar to a STEP system, but without the solids settling tank (Figure 3.2).

Before 2006, there was little effort to control the use of grinder pump systems, other than a general ban on "community" grinder pump systems, where a group of residences each have a grinder pump that connects to a common pressurized sewer main in the right-of-way.

Concurrently with the 2007 Wastewater Management Plan, the Olympia Comprehensive Plan was changed to allow the use of grinder pump systems under certain conditions. The municipal code was updated to clarify under what circumstances grinder pumps can be used.

Unlike STEP systems, grinder pump systems are not owned or maintained by the City. However, the Department of Ecology's Criteria for Sewage Works Design requires utilities to develop "uniform standards for system design, installation, operation, maintenance, and emergency response measures" for grinder pump systems. It also requires utilities to "maintain a library of operation and maintenance manuals for the type(s) of systems installed within their service territory." For these reasons, and for consistency in design and reliability of service, the City stipulates the types of grinder pumps that can be connected to its sewer system. See **Chapter 7** of the Olympia Engineering Design and Development Standards (EDDS) for more information on the specific pump type, required appurtenances, and design requirements.

Currently, there are approximately 280 grinder pumps in the Olympia Sewer Service Area, all of which are owned and operated by the property owners. This accounts for about 2% of the Utility's customers. The Utility owns just over one mile of grinder force main. See **Chapter 5** for locations of current grinder pump connections in each basin.

3.5 Neighboring Jurisdictions (LOTT Clean Water Alliance Partners)

The City coordinates regional wastewater issues with the neighboring jurisdictions of Lacey, Tumwater and Thurston County through LOTT staff, a Technical Sub Committee and LOTT's board of elected officials (see Section 3.6). Specific development proposals located within Olympia's UGA are coordinated by planners and engineers at the staff level. Common operational and maintenance issues are routinely handled with field staff coordination as needed.

There are a few instances of crossover between Olympia's wastewater system and the Lacey and Tumwater systems, particularly in areas where city boundaries are complex. Three examples are the region surrounding South Puget Sound Community College, where some pipes serve both Olympia and Tumwater customers, the neighborhood south of Carlyon Street and East of Capitol Boulevard, and the area on Sleater-Kinney Road, north of 6th Avenue.

Coordination with neighboring jurisdictions will grow increasingly important as LOTT decentralizes wastewater treatment into satellite reclamation facilities.

3.6 LOTT Clean Water Alliance

LOTT provides wastewater treatment and reclaimed water production services for the urbanized area of north Thurston County. Its four government partners (Lacey, Olympia, Tumwater and Thurston County) formed the LOTT partnership in 1976 to jointly construct and operate wastewater treatment facilities. In 2001 the partnership was reorganized as the LOTT Alliance (now LOTT Clean Water Alliance), a non-profit corporation with a governing board representing the four partner jurisdictions. A City Council member represents Olympia on the LOTT Board of Directors. The Technical Sub-Committee (TSC), consisting of the Public Works Directors of the four partner jurisdictions, advises the Board on technical matters and capital projects. Both groups meet monthly.

LOTT Treatment Facilities

LOTT's overall service area encompasses the city limits and urban growth areas for the cities of Olympia, Lacey and Tumwater. LOTT currently serves a population of about 118,000, roughly 68% of the total population in the service area. The remaining 32% are served by OSS. In the long term, the entire service area is expected to be served by public sewer.

LOTT's facilities currently include the central Budd Inlet Treatment Plant, the Budd Inlet Reclaimed Water Plant, the Martin Way Reclaimed Water Plant, the Hawk's Prairie Reclaimed Water Ponds and Recharge Basins, major interceptor sewer pipes, reclaimed water pipes and three regional lift stations. Table 3.4 summarizes the volume of wastewater treated for the years 2012-2018.

The treatment of wastewater at LOTT has advanced from primary treatment in the early 1950's to advanced secondary standards in 1983 and tertiary treatment (nitrogen removal and ultraviolet disinfection) in 1994. LOTT's Budd Inlet Treatment Plant is one of the only plants in the Puget Sound area that employs biological nutrient removal. Since 2005, LOTT has also treated a percentage of the flow to stringent Class A Reclaimed Water standards. This high quality water is reused for a variety of non-potable purposed including irrigation, water features, and groundwater recharge. (See below and Tables 3.4 and 3.5). Flows to LOTT are highly dependent on precipitation due to inflow and infiltration into the wastewater system.

About 16 miles of LOTT's sewer pipes and two lift stations are located in Olympia. LOTT sewer pipes are located under:

- Martin Way
- Capitol Boulevard
- Henderson Boulevard
- Plum Street and other downtown streets
- Mottman Road
- Along Indian and Percival Creeks
- Along the Karen Fraser Olympia Woodland Trail
- Black Lake Boulevard
- Cooper Point Road
- Around Capitol Lake

In many cases, the City of Olympia's neighborhood sewer systems connect directly into the LOTT interceptors. Because of these connections, problems in the City's wastewater system or in LOTT's LOTT pipes have the potential to cause problems for Olympia customers.

Wastewater Resource Management Plan

LOTT's long-range Wastewater Resource Management Plan, completed in 1998, sets the stage for a decentralized approach to wastewater management in the Lacey-Olympia-Tumwater urban growth areas. As population grows and demand for wastewater treatment increases, LOTT will meet the demand by expanding production of Class A Reclaimed Water. This approach creates a valuable resource that can be reused. As development occurs, small units of treatment and reuse capacity will be added "just in time." LOTT maintains reserve capacity at the Budd Inlet Treatment Plant to accommodate increasing flows during the time needed to plan, design and build new capacity.

LOTT's production of Class A Reclaimed Water began in 2005 with completion of the Budd Inlet Reclaimed Water Plant located at the Budd Inlet Treatment Plant site. Construction of the first satellite facility, the Hawks Prairie Reclaimed Water Satellite in Lacey, was completed in 2006. The satellite includes the Martin

Way Reclaimed Water Plant, the Hawks Prairie Ponds and Recharge Basins, and pipes to move the reclaimed water from the treatment facility to the recharge site. It diverts wastewater flows from Lacey that would otherwise have been conveyed to the Budd Inlet Treatment Plant. Martin Way has two million gallons per day (mgd) of treatment capacity, expandable to five mgd. The Hawks Prairie Ponds and Recharge Basins provide at least five mgd of recharge capacity.

Note that Table 3.4 shows total water flows managed by LOTT, and Table 3.5 shows reclaimed water production. For the Budd Inlet Treatment Plant, the difference between the two values for any given year suggests the volume of treated water discharged to receiving waters (Budd Inlet), although a small portion of the difference is attributable to recycled flows within the treatment process. For the Martin Way Reclaimed Water Plant, the difference indicates the portion of the flow reused or recycled within the treatment process.

Table 3.4 Volume of Wastewater Treated by LOTT (million gallons)*

	2013	2014	2015	2016	2017	2018
Budd Inlet Treatment Plant						
Daily Average	11.30	11.82	11.17	12.57	13.73	11.62
Minimum Monthly Average	9.26	8.83	9.31	9.10	9.58	8.89
Maximum Monthly Average	13.22	17.28	17.51	17.26	21.15	17.11
Peak Flow	25.10	32.04	38.12	31.80	34.27	27.94
Martin Way Reclaimed Water Plant						
Daily Average	0.04	1.16	1.30	1.27	0.89	1.49

Table 3.5 Reclaimed Water Production Average, by LOTT (million gallons per day)*

	2013	2014	2015	2016	2017	2018
Budd Inlet Reclaimed Water Plant	0.53	0.48	0.52	0.54	0.56	0.57
Martin Way Reclaimed Water Plant	0.00	0.98	1.13	1.19	0.72	1.22
Total	**0.53**	**1.46**	**1.65**	**1.73**	**1.28**	**1.79**

LOTT's Wastewater Resource Management Plan is known more familiarly as the "Highly Managed Plan" because it requires continual monitoring, planning and evaluation of future capacity needs. To identify changes or additions to planned capital projects or programs, LOTT annually analyzes capacity to include treatment capacity, discharge capacity or beneficial use of treated water, and its operational pipeline capacity.

To meet its facility plan requirements for wastewater treatment, the City of Olympia incorporates the LOTT Wastewater Resource Management Plan by reference into its Wastewater Management Plan. This was authorized April 10, 2001 by Olympia City Council adoption of Ordinance 6097, which states:

> *The Olympia City Council hereby approves the LOTT Wastewater Resource Management Plan's Highly Managed Alternative, of November 1998, and directs that said Plan be incorporated into the City's Comprehensive Plan and General Sewer Plan at the time of the next update.*

LOTT's Capital Improvement Projects

LOTT updates its Capital Improvements Plan (CIP) every two years. LOTT looks at its capital projects planning in both a near term (six-year) view, and a longer life-cycle (20-year) view. LOTT's 2019-2024 CIP, including its proposed 2019-2020 Capital Budget, is summarized in Table 3.6.

Table 3.6 LOTT 2019-2020 Capital Budget and 2019-2024 CIP*

Project Categories	2019-2020 Capital Budget	2019-2024 CIP
System Capacity	$39,161,012	$68,327,427
New Capacity	$188,769	$660,691
Asset Management	$4,796,715	$16,884,373
Support Services and Projects	$17,614,433	$45,277,429
Total	**$61,760,929**	**$131,149,921**

Near-term LOTT projects with direct implications to Olympia include:

- Collection System Piping Rehabilitation (2019-2022)
- Martin Way and Sleater Kinney Manhole Repair (2019)
- Flow Monitoring Program (Ongoing)
- Flow Reduction Programs (Ongoing)
- Septic Conversion Incentive Program (Ongoing)

3.7 Pretreatment

Industrial Pretreatment

LOTT's Industrial Pretreatment Program is designed to prevent pollutants from entering public conveyance and treatment facilities that could interfere with flow or operations, impact receiving water or biosolids quality, or threaten workers' safety.

Through regulations appended to the LOTT Interlocal Agreement (2000), the four LOTT partner jurisdictions have adopted identical pretreatment ordinances, which are enforced by the partner jurisdiction (see Olympia Municipal Code Title 13 **Chapter 20**).

LOTT requires that discharges from permitted facilities meet industrial user permit requirements based upon applicable pretreatment standards and requirements. The pretreatment program includes provisions for monitoring, reporting and enforcement to ensure that substances that can harm worker safety, damage infrastructure and affect water quality are not introduced into the wastewater system. Examples of such substances are toxic organics, heavy metals and corrosives. The program is updated as new users seek connections to the system, or as existing users change the pattern, quantity, quality or composition of discharge.

As of the end of 2018, there were nine Significant Industrial Users (SIUs) and two Minor Industrial Users permitted by LOTT in its service area. Table 3.7 summarizes those permittees that are located in the City of Olympia and discharge into the City's wastewater system. Categorical industrial users are required to have an industrial user permit if they discharge or have the potential to discharge to the sewer.

LOTT's annual Pretreatment Report has more detailed information regarding permittees as well as current and planned efforts under the Pretreatment Program.

Table 3.7 LOTT Industrial Pretreatment Permittees in Olympia			
Industry	**Type of Permit ***	**Product**	**2017 Average Discharge (gpd)**
Fish Brewing Co.	MIU	Beer	1,555
Crown Cork & Seal, Inc.	SIU	Aluminum Cans	40,200
Georgia-Pacific Corp.	SIU	Cardboard	3,600
J.R. Setina Manufacturing Co., Inc.	SIU	Vehicle Accessories	0
Roy's Designs, Inc.	SIU	Metal Coatings	0

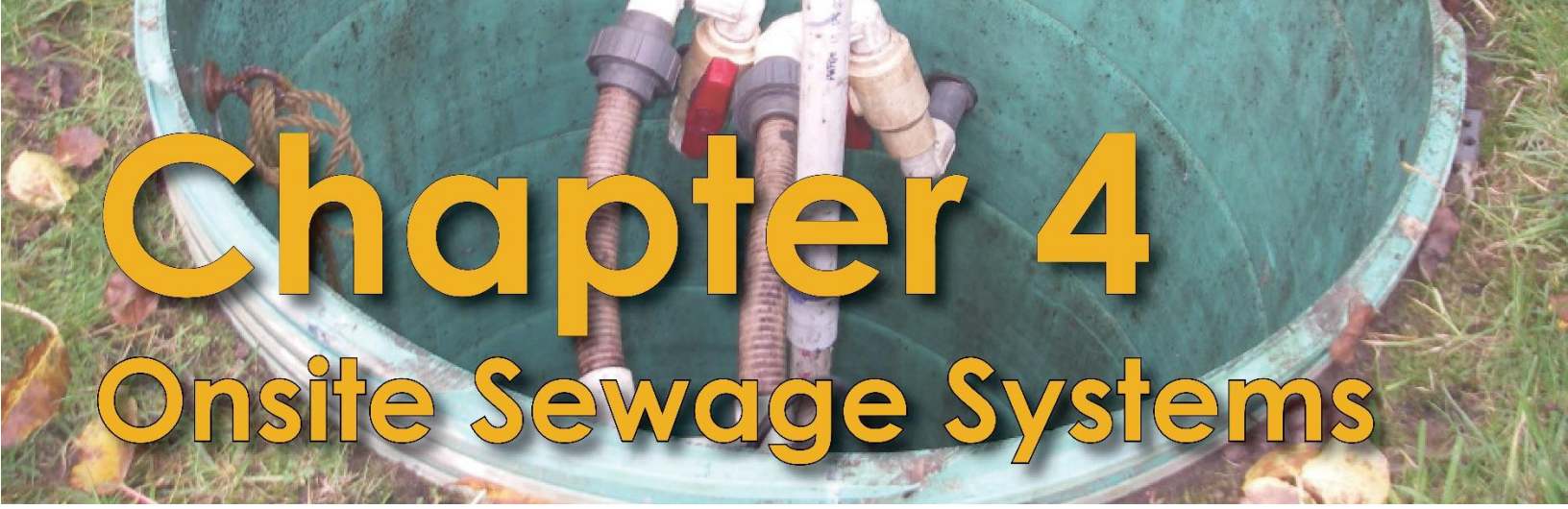
* SIU are significant industrial users and MIU are minor industrial users.

Fats, Oils and Grease

Most commercial food service establishments (FSE) produce waste products of fats, oils and grease (FOG) that if discharged to the sewer at their source contribute to grease build up in the wastewater system, leading to capacity and overflow problems, as well as treatment plant issues. City operation and maintenance staff regularly respond to conveyance problems associated with FOG. A byproduct of cooking, FOG comes from meat, fats, lard, oil, shortening, butter, margarine, food scraps, sauces, and dairy products. Grease interceptors are required of all FSEs that produce FOG.

LOTT, in cooperation with the City of Olympia and its other partners, regularly surveys FSEs and provides technical assistance as needed to help FSEs reach compliance in addressing FOG. The City is responsible for enforcement of the pretreatment regulations related to FOG, if an FSE does not respond to initial efforts to comply.

FSEs are not the only producers of FOG – residential wastewater can contain significant concentrations of FOG that can clog side sewers and gravity sewer pipes, and cause problems with the proper function of lift stations, STEP tanks and grinder pump systems. Educational efforts geared toward reducing or eliminating this problem are found at LOTT's Water Education and Technology (WET) Science Center, on the City's website, as well as through periodic mailings.



Chapter 4
Onsite Sewage Systems

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CHAPTER 4 - ONSITE SEWAGE SYSTEMS

Households and businesses that are not connected to the City's wastewater system must treat and dispose of their sewage, also known as wastewater, on site. There are approximately 4,225 septic systems, also known as onsite sewage systems (OSS), in Olympia and its urban growth area (UGA) – about 2,100 in the City and 2,125 in the UGA. Figure 4.1 shows an example map of the distribution of OSS in a select area of the City's Sewer Service Area. For complete mapping of lots served by OSS, see **Chapter 5** and **Appendix J**.

OSS have historically been the most common method of sewage treatment in Thurston County. Many lots served by OSS were not connected to sewer service after sewer pipes were installed in the vicinity, sometimes directly in front of the property.

In the 1950s, reports of failing OSS and pollution of Capitol Lake and Budd Inlet made it clear that significant sewer infrastructure improvements were needed in the Olympia area. In the 1970s, concerns about public health risks associated with OSS led the Thurston County Board of Health to require inspection and certification of OSS. The focus of their monitoring program has been in the Henderson Inlet watershed due to pollution causing the closure of many beaches to shellfish harvesting. The increased oversight has led to many of the beaches being reopened for shellfish harvesting in recent years.

Currently, both Thurston County and the City of Olympia regulate the permitting and use of OSS within Olympia's Sewer Service Area (see Section 4.5 below for more details). Property owners are responsible for maintaining individual OSS.

This chapter reviews the types and functioning of OSS, the potential public health risks associated with the systems, proximity of OSS to Olympia's sewer system, potential costs of OSS conversion to public sewer and the current regulatory framework.

Challenges associated with OSS in the City and UGA are introduced and discussed in this chapter, and summarized in **Chapter 8**. Goals and Strategies related to OSS are presented in **Chapter 9**.

Figure 4.1 Example Map of Lots Served by Individual Onset Sewage Systems[1]

4.1 Types of Onsite Sewage Systems (OSS)

There are two main types of onsite sewage systems, individual (OSS) and community (COSS). Normally, OSS only serve one dwelling, one duplex or one business. COSS treat sewage flows greater than 600 gallons per day (gpd) or flows discharged from three or more dwellings. Under state law, a public jurisdiction must own and operate COSS. In cities and their UGAs, COSS are considered an interim form of sewer service, to be used only until public sewer service become available. As part of the 1992 intergovernmental agreement with Thurston County (see **Chapter 2**), the City owns and maintains all COSS within the City's Sewer Service Area. Currently, there is only one COSS in Olympia's Sewer Service Area, built in 1994 and serving three single family residences.

Larger OSS, or LOSS, a type of COSS treating flows greater than 3,500 gpd, were regulated by Thurston County until 2011, and are now regulated by the Washington State Department of Health. There are no LOSS in the City or its UGA.

An OSS typically consists of a buried 500-1500 gallon, two-compartment septic tank and a drainfield. The tank collects sewage from the structure(s), which is then separated into (1) solids that settle and are broken down biologically by naturally occurring bacteria, (2) liquid that flows out of the tank and into the drainfield, and (3) fats, oils and grease (FOG) that float on top of the liquid in the tank and get partially

broken down. In a properly functioning OSS, the liquid sewage either flows out of the tank by gravity, or is pumped to the drainfield, where it is evenly distributed in the drainfield.

As the sewage percolates through the drainfield and underlying soil, further filtration of the sewage occurs, as well as additional biological treatment before it reaches groundwater. The solids and FOG need to be pumped out of the tank on a regular basis, typically once every three to ten years, based on use.

Figure 4.2 is a conceptual diagram of an individual OSS, and Figure 4.3 shows a community onsite system (COSS).

Proper functioning of OSS depends on the soil's ability to process and filter the effluent. With the large silt fraction of soils in the South Puget Sound region, less than one percent of Thurston County soils are ideal for onsite sewage treatment, and 87% of the land by area is inappropriate for OSS (LOTT, 1998). See the Geology and Soils section in **Chapter 2**.

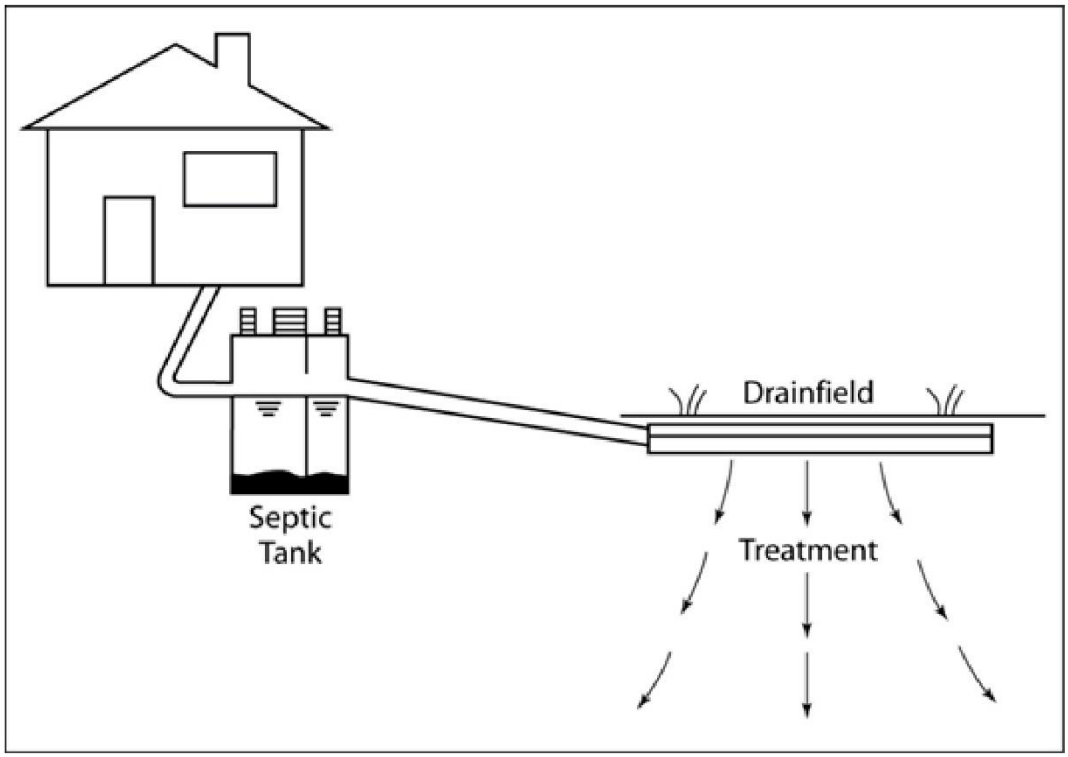


Figure 4.2 Individual Onsite Sewage System

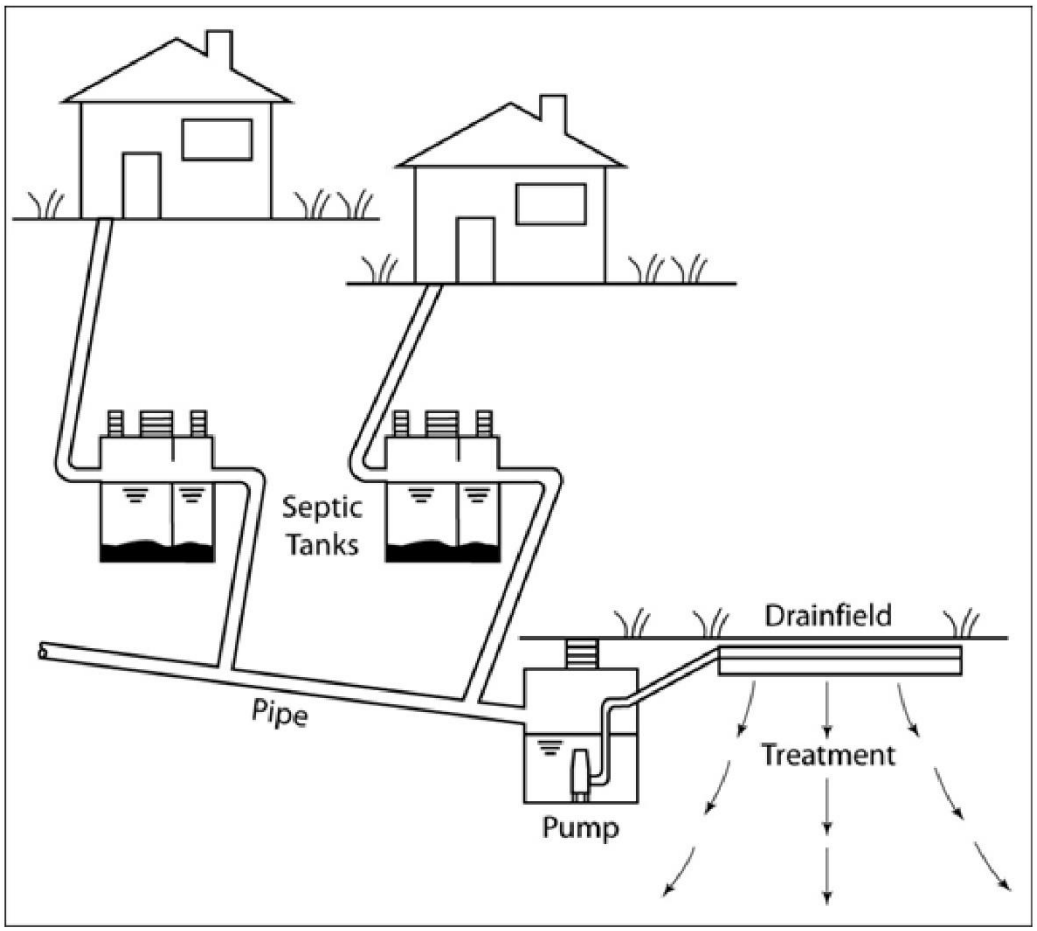


Figure 4.3 Community Onsite Sewage System

4.2 Public Health Risks of OSS in Urban Areas

OSS can be an effective and safe method of treating and disposing of treated sewage when properly designed and installed, maintained regularly, and kept at moderate to low site densities. OSS are appropriate in rural areas, but were not intended for use in increasingly dense developed cities. OSS require a treatment and disposal area large enough to adequately break down and dilute effluent-borne contaminants.

The presence of over 4,000 OSS in Olympia and its UGA creates the potential risk to environmental and public health from groundwater, surface water and soil contamination. Figure 4.4 illustrates these risks.

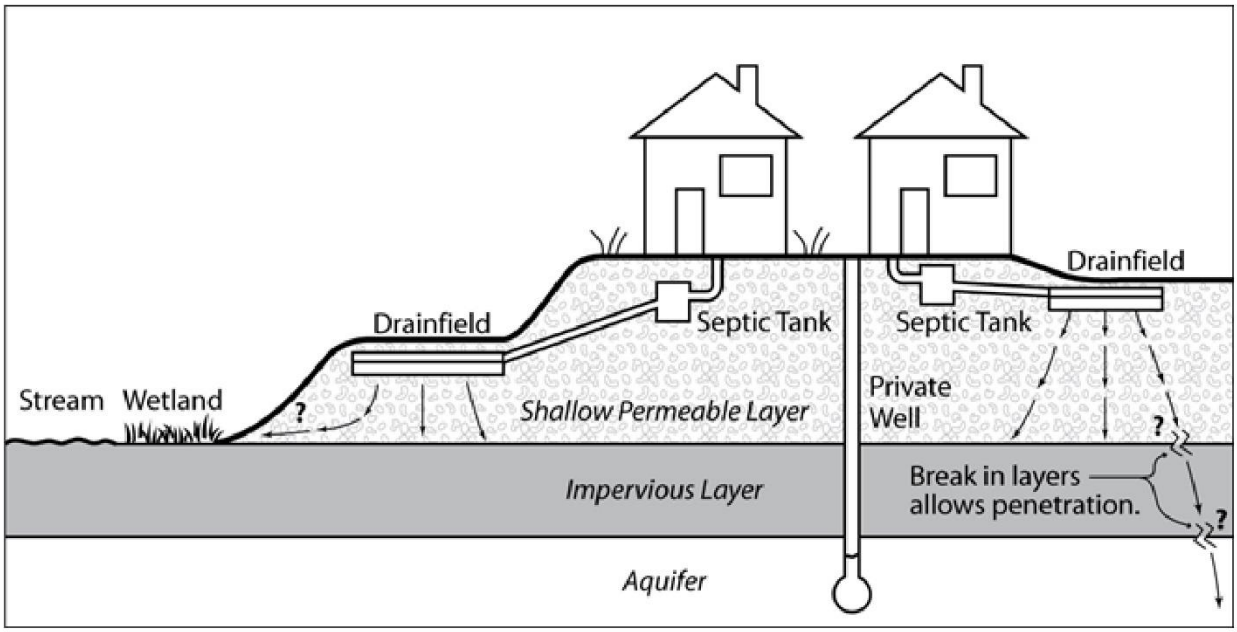


Figure 4.4 Potential Risk to Groundwater and Surface Water from OSS

Risk of OSS Failure

Industry research has indicated that the design life of OSS is generally 20-30 years. The potential for failure increases with time, even if the system is properly sited and consistently maintained. However, records show some systems last much longer than the average.

OSS that are not properly sited and maintained may threaten water quality and public health by releasing bacteria, viruses, nitrogen, phosphorous, heavy metals and chemicals from household products into the environment. “Failure” means the system threatens public health because it is not adequately treating sewage or is creating a potential for people to come in contact with sewage. Examples of failure include:

- Sewage on the surface of the ground.
- Sewage discharged directly to surface water.
- Sewage backing up into a structure because of slow infiltration of effluent through the soil.
- Sewage leaking from a tank, pump chamber, holding tank or collection system.
- Inadequately treated effluent contaminating ground water or surface water (determined by dye tracing and/or fecal coliform count).
- Surface or ground water intrusion into a tank, pump chamber, holding tank, or collection system.
- Cesspools.
- Seepage pits where there is evidence of ground or surface water quality degradation.

Evidence of Contamination from OSS

OSS, especially when used at urban densities, create threats to both groundwater and surface water. Nitrates are a common groundwater contaminant associated with OSS, while bacteria linked to OSS are often found in surface water.

Nitrate is increasingly observed in groundwater, including the City's drinking water supply wells in Southeast Olympia. In some cases, the concentration of nitrate threatens the viability of both private and public drinking water supplies. OSS have been identified as a significant contributor to the problem through detailed studies conducted in the 1990s and 2000s. The City's wellhead protection areas are taken into account when the Utility evaluates sites for new and replacement OSS.

In addition, bacterial contamination from failing OSS is one of the principal causes of shellfish restrictions imposed on Puget Sound since 1980 (Grover 1996). Ongoing water quality monitoring confirms that streams and marine waters within Olympia have elevated levels of bacterial contamination.

Guidance on Siting of OSS

Research demonstrates that properly functioning OSS can pollute ground and surface water if they are concentrated in too small a land area (DeFeo, 1991; Yates, 1985). In Olympia and its UGA, an estimated 43 percent of OSS are sited on lots less than the minimum recommended lot size of 12,500 square feet (WAC 246-272-20501; Article IV, Section 21). Similarly, ground and surface water quality impacts have been observed where the average density of OSS is more than four systems per acre, even in well-drained soils (Brown and Bicki 1987, 1991). The maximum density of OSS in Olympia's Sewer Service Area is approximately 4 systems per acre, in areas of the southeast UGA. More typical densities in areas with OSS are less than 2 systems per acre. As a comparison, all of Olympia and its UGA is zoned or planned for densities with residential lot sizes of approximately 5,000 square feet or about 8.7 lots per acre.

Additional guidance recommends that OSS should be adequately separated from drinking water wells. Analysis on virus mortality and migration suggests that OSS should be at least 400 feet apart to reduce virus concentrations below safe drinking water standards in the groundwater (Brown & Bicki 1997, 1991; LOTT 1998). Under current County regulations, if a lot is served by a private well, the minimum lot size for an OSS is one acre (Article IV, Section 21). In addition, new OSS must be located at least 100 feet from a water supply source or other surface water and 200 feet from a public drinking water supply (WAC 246-272-09501; Article IV, Section 10).

Under State regulations, OSS cannot be installed within 100 feet of fresh or marine surface water (WAC 272-0950). With waivers, Thurston County maintains authority to reduce the buffer distance to 50 feet. In addition, the City's Shoreline Master Program prohibits OSS for new development within the shoreline jurisdiction. Under Olympia's Critical Areas Ordinance, OSS are not allowed in designated critical areas (e.g., wetlands and floodplains), or their buffers.

Table 4.1 Siting and Characteristics of OSS in Olympia

Onsite Sewage System Characteristic	Approximate Number	% of Total[1]
Lots less than 12,500 sq. ft.	1,800	43%
Lots with drinking water wells (100 ft from well required by WAC, 400 ft. between OSS recommended)	1,200	28%
Lots within 100 ft of surface water	470	11%
Lots within Olympia drinking water wellhead protection areas	870	21%
Lots within Olympia portion of Henderson Watershed Protection Area	835	20%

[1]Total adds up to more than 100% because some OSS meet more than one of the characteristics.

Assessment of Current Risks in Olympia

In response to increasing concern over the prevalence of OSS in the Lacey-Olympia-Tumwater area, Thurston County Environmental Health completed a planning-level analysis of existing OSS use and their environmental risks. The analysis used mapping technology to link the various densities of OSS in neighborhoods to screening criteria defining potential risks to both surface and ground water. This information provides a productive planning-level tool for considering jurisdictional needs for OSS policies and regulations, and the potential need to convert systems to sewer service.

The analysis documented the occurrence of individual OSS in the north Thurston County area. Areas with OSS were subsequently grouped into neighborhoods based on subdivision plats or lots that share similar characteristics. Commercial and multifamily OSS were converted to a single family residential equivalency unit. OSS densities in the neighborhoods were calculated and grouped as follows: ≤ 1 OSS unit/ acre, 1-2 units/acre, 2 to 4 units/acre, and ≥ 4 units/acre. For this analysis, the density of OSS was a key risk factor.

Given OSS densities, several natural resource parameters were used to refine the potential threat to both surface water and groundwater. The risk of surface water contamination from OSS increases with neighborhoods that are close to water bodies and that have soils that generate runoff rather than infiltrate. When combined with neighborhoods with relatively high densities of OSS, these geographic traits create a higher potential for contamination.

Similarly, neighborhoods located within drinking water protection areas and with soils that readily infiltrate generate relatively high risks to groundwater.

The analysis indicates that from a regional planning perspective the implications of OSS in Olympia may be modest, with many areas at lower risk to both groundwater and surface water. Maps depicting the outcomes of the analysis are provided in Appendix J. Chapters 8 and 9 further address OSS challenges and recommendations as well.

4.3 Proximity of OSS to Olympia Wastewater System

OSS are distributed throughout Olympia and its UGA. As surrounding homes and neighborhoods developed on public sewer, isolated or small pockets of systems have remained. Other areas such as portions of Northeast and Southeast Olympia include entire subdivisions served by OSS. Additionally, many undeveloped infill lots remain in Olympia. At some point, most of these isolated lots will develop and need sewer service.

In general, current City policies require a developing lot or a failing existing OSS to connect to the public system if located within 200 feet of the sewer pipe. Of the 4,225 OSS in Olympia and its UGA, over 1,100 are within 200 feet of public sewer. As shown in Table 4.2, an estimated 1,260 systems in the City and 1,840 in the UGA are further than 200 feet from sewer and could be connected only if sewer pipes were extended. The table also shows the distribution of OSS in relationship to existing sewer pipes.

Table 4.2 Proximity of OSS to Public Sewer

	Adjacent to Sewer Main	Within 200 feet	Over 200 feet	Total
Within City limits	570	270	1,260	2,100
Within UGA	230	55	1,840	2,125
Total	800	325	3,100	4,225

Many undeveloped lots are within a feasible connection distance to the public wastewater system. For those undeveloped lots that are further than 200' from sewer, the lot size determines whether an OSS may be a viable option. Lots over one acre are more likely to be eligible for an OSS permit than lots under one acre. Prior to the 2013 Plan, only lots larger than an acre were eligible for new septic systems inside the city limits. As a result of the Plan and with input from Thurston County, the Utility changed the regulations in 2017 to allow new septic systems on lots smaller than an acre, but only if additional criteria are met. Table 4.3 shows characteristics of undeveloped lots in relationship to lot size and distance to existing sewer pipes.

Table 4.3 Characteristics of Undeveloped Lots Related to OSS Permitting[1]

	Within 200 feet	Over 200 feet and < 12,500 SF	Over 200 feet and between 12,500 SF and 1 acre	Over 200 feet and > 1 acre	Total
Within City limits	1,650	140	110	100	2,000
Within UGA	240	60	80	70	450
Total	1,890	200	190	170	2,500

[1]Not all undeveloped lots are developable.

4.4 Potential Costs of Converting OSS to Public Sewer

For owners of OSS, the cost of connecting to City sewer can be substantial. Table 4.4 summarizes the potential costs of OSS conversion and highlights the high degree of variability of construction costs.

Table 4.4 Typical Costs for Converting an OSS Property to Public Sewer

	Item	Range of Costs[1]
Construction Costs		
1.	Construct Sewer Pipe in Street	$0 (if sewer is available) $4,000 - $15,000+
2.	Side Sewer Construction to House (high end is for grinder pump or STEP connection)	$4,000 - $14,000+
3.	OSS Abandonment	$1,000 - $1,500
	Construction Subtotal =	$5,000 - $30,000+
2019 Applicable Fees and Permits		
4.	LOTT Clean Water Alliance Capacity Development Charge (LOTT CDC)	$1,512[2] - $6,049
5.	City Wastewater General Facility Charge (GFC)	$0[3] - $3,442
6.	Permits for Sewer Connection	$500 - $2,000
7.	OSS Abandonment Permit (Thurston County)	$275
	Connection Fees Subtotal =	$2,300 - $12,000
	Range of Total Costs to Convert =	**$7,300 - $42,000+**

[1]In 2019 dollars, rounded figures.

[2]A limited number of 50% - 75% instant rebates are available to help pay for the LOTT CDC.

[3]The City Wastewater GFC is waived per Olympia Municipal Code 13.08.205(C) for properties with an existing OSS that connect to sewer within two years of notice of sewer availability or within two years of new ownership or with an approved LOTT CDC rebate.

Through its Septic to Sewer Program, the City assists homeowners with an OSS to convert to public sewer. The program was created in response to the environmental considerations discussed above. The program includes the following components:

- Public education and outreach
- General Facility Charge (GFC) Waivers
- Neighborhood Sewer Extension Program

The program was revised in 2017 to further assist property owners. The changes increased the number of properties eligible for GFC waivers. It also reduced the amount property owners reimburse the City for neighborhood sewer extensions.

The number of OSS conversions to public sewer increased from an average of 5 conversions per year between 1997 and 2008 to an average of 14 conversions per year between 2009 and 2018. The increased rate of conversion corresponds to implementation of the City's Septic to Sewer conversion program. GFC waivers and neighborhood sewer extensions account for the increase in conversions. There has also been an increase in the number of conversions since the start of the LOTT Septic Conversion Incentive Program in 2017, featuring 50% to 75% rebates on the LOTT CDC. More information on both programs is available on the City webpage.

4.5 Current Regulations

Privately owned individual OSS and community OSS are regulated by the Thurston County Board of Health. The County Environmental Health Division is responsible for reviewing permit applications for new OSS and repair or expansion of existing systems. Its staff maintain OSS records, and oversee the inspection of OSS before property ownership is transferred.

This section summarizes the regulatory framework for individual and community OSS, special regulations for the Henderson Watershed Protection Area and pending regulations on underground greywater irrigation systems.

Individual Onsite Sewage Systems (OSS)

The City has no responsibility for owning, maintaining or managing private individual OSS. However, the City does have the authority within its Sewer Service Area, including in the UGA, to determine if a new OSS or repairs to an existing OSS are allowable, or whether the proposed or existing building(s) is required to connect to sewer service. Therefore, all OSS repair or new construction applications for sites located in the City or its UGA are routed to the City for review and recommendation for approval or denial. Applications in the UGA are reviewed only for sewer availability. See Appendix P for a flowchart that guides City and County staff in determining whether or not a proposed OSS can be permitted within the City or its UGA.

City regulations for permitting new OSS are more restrictive than State and County regulations. Under current State and County regulations (WAC 246-272A-C and Article IV of the Thurston County Sanitary Code, respectively), new OSS are allowed under certain conditions, most importantly when the following conditions can be met: it can function properly, it is located in suitable soils at a safe distance from a water well, and no public gravity line is accessible. Under State and County standards, OSS served by a public water system must be located on lots of at least 12,500 sq. ft. (with a density of 3.5 lots per acre or less); the County code allows OSS on smaller lots of record (i.e. lots created before 1995) if they meet other criteria (WAC 246-272A-0210 and WAC 246-272A-0320). City permitting regulations restrict new OSS inside the City limits to lots that are more than 200 feet from an available sewer pipe and for existing lots greater than one acre in size, except under certain circumstances outlined in Olympia Municipal Code section 13.08.090. Replacing existing OSS located more than 200 feet from municipal sewer can be permitted.

All new OSS in the City and UGA must be designed as interim and agree to connect within one year of being notified to do so.

The County Health Code requires owners of larger or more complex systems to have them certified and inspected every one to three years. High-risk OSS located in the Henderson Inlet Shellfish Protection Area have more stringent requirements (see below). A City-County Resolution also encouraged owners of OSS to register with the Thurston County Operational Certificate Program. Olympia Water Resources cooperates with Thurston County in periodic educational activities to encourage proper maintenance by OSS owners.

Community Onsite Sewage Systems (COSS)

Community onsite sewage systems (COSS) are considered by the Department of Ecology to be public sewerage treatment facilities, requiring the City to assume ownership and maintenance responsibility. Under an October 1992 intergovernmental agreement with Thurston County, the cities of Olympia, Lacey and Tumwater own and operate COSS within their UGAs. Public ownership is meant to encourage development within the UGA in the interim before sewer infrastructure is extended, and to ensure consistent Wastewater Utility services to all customers as mandated by the Growth Management Act.

Current Wastewater Utility practice allows approval of a COSS only if topography or other constraints preclude connection to the public sewer, and if the cost of extending the sewer exceeds COSS installation and lifecycle costs by 50 percent. Before the City takes over ownership and maintenance of a COSS, the developer must pay all up-front connection fees to the Wastewater Utility, including the CDC and GFC. Customers connected to a COSS must agree to pay the regular monthly sewer utility rate, and connect to sewer service within one year after sewer becomes available, including paying any connection fees not previously paid to the City at the time of connection to the COSS.

COSS are considered interim systems and must be designed for efficient conversion to sanitary sewer. COSS permits in the UGA require that property owners sign an agreement to support an annexation petition, to take effect when the area becomes contiguous to the City.

Currently, Olympia maintains one COSS, located on Devoe Road in the UGA.

Henderson Watershed Protection Area

In May 2004, a Thurston County citizen advisory committee recommended a program to enforce OSS maintenance in the Henderson Inlet watershed (see Figure 4.4), where fecal coliform bacteria from human waste are contributing to the pollution in streams and marine waters (Thurston County, 2002). Woodland and Woodard Creeks, which capture runoff from northeast Olympia, Lacey and Thurston County, are on Washington State's 303(d) list of water quality impaired water bodies, a list maintained as a requirement of the federal Clean Water Act. The Olympia portion of these basins includes lots with 835 OSS, 530 within the City limits and 305 in Olympia's UGA.

Based on the committee's recommendations, Thurston County approved its first mandatory OSS operation and maintenance program to help restore water quality. The program requires that all high-risk OSS within the existing shellfish district be inspected on a regular basis and that owners maintain a current County Operational Certificate. See Article IV of the Sanitary Code for Thurston County for more information regarding this program.

The program has been successful in achieving the goal of reducing pollution contributed by failing OSS through a routine inspection and maintenance program. Measurable improvements in the marine water of Henderson Inlet have occurred, and the shellfish harvest status was upgraded for 340 acres of tideland. OSS owners have taken responsibility for the operation and maintenance of their systems – as evidenced by the 2100+ certified homeowner inspectors and an on-going compliance rate of about 87 percent. Additional information can be found on the web site for Thurston County Environmental Health.

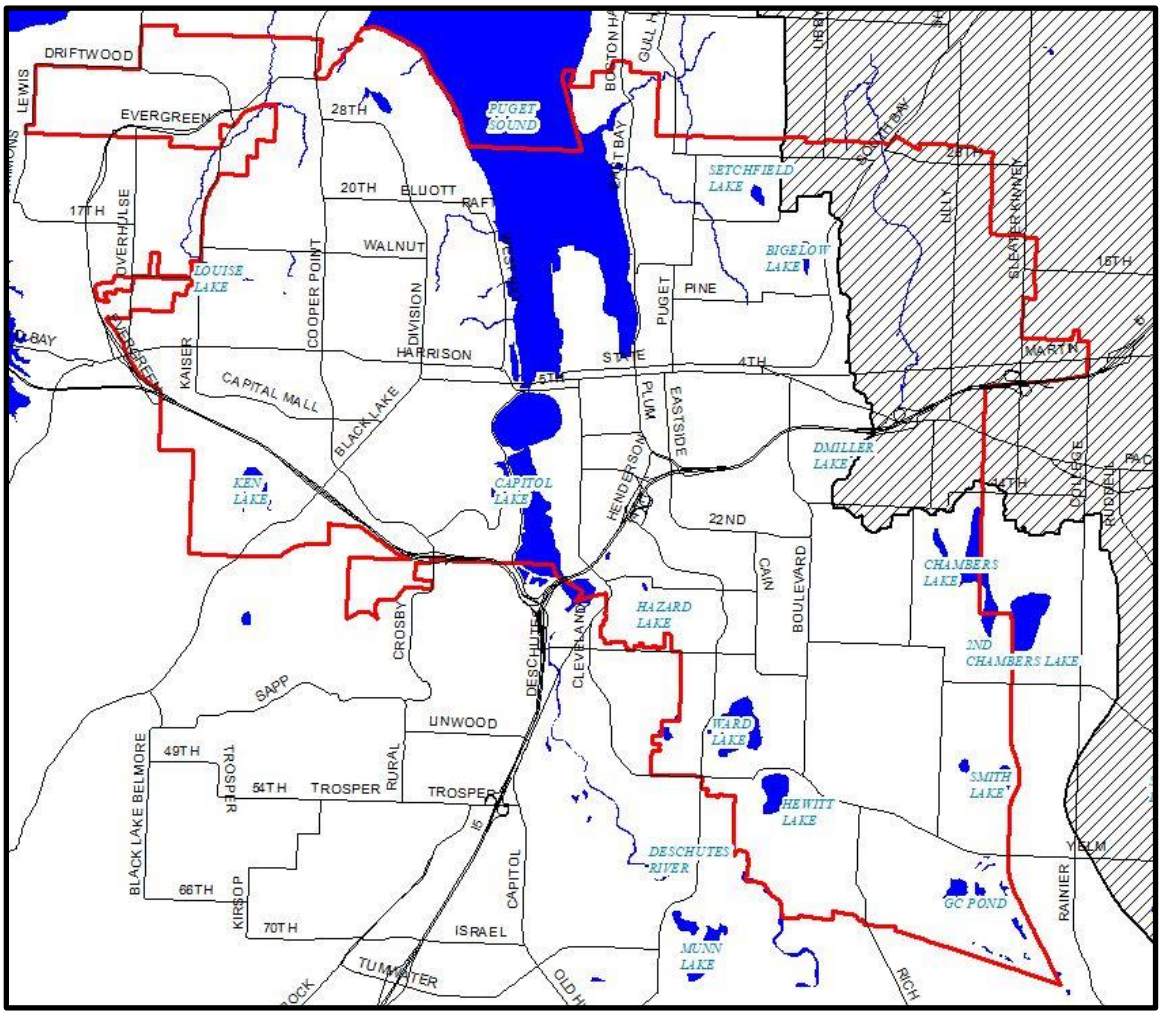
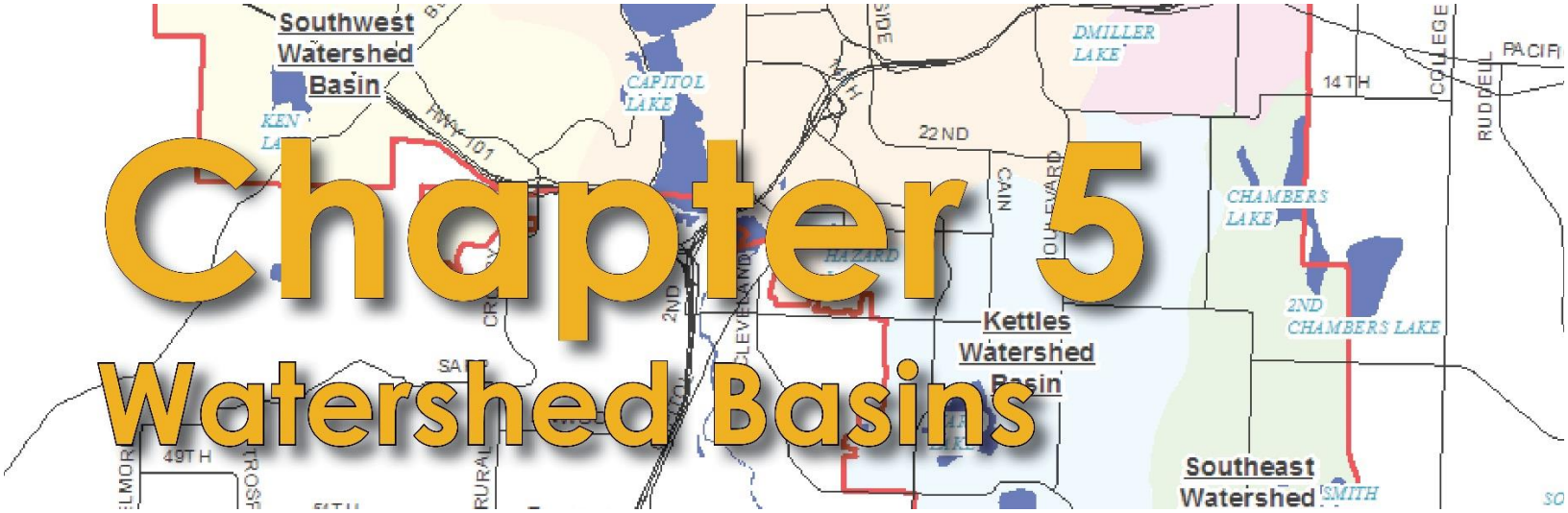


Figure 4.5 Henderson Inlet Watershed Protection Area (hatched area)



Chapter 5
Watershed Basins

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CHAPTER 5

Chapters 3 and 4 describe Olympia's wastewater system in terms of system components: gravity sewer pipes, lift stations, STEP systems, grinder pump systems and septic systems, also known as onsite sewage systems (OSS). This chapter looks at the wastewater system from a basin perspective with an analysis of the unique characteristics and needs of each region of the Sewer Service Area.

In many cases, these characteristics and needs relate directly to the wastewater challenges discussed in **Chapter 8**.

Each regional wastewater basin is briefly described in terms of receiving waters, existing infrastructure, projected development, wastewater (also known as sewage) flow, number of STEP and OSS, water quality issues and specific challenges. Additionally, the maps in Appendix J show the location of gravity sewer pipes, lift stations and force mains (pressurized pipes), STEP force mains and tanks, and OSS within each basin.

The regional wastewater basins are delineated in Figure 5.1. Each basin shares a common sewer pipe at the downstream end of the basin. All of the wastewater in a basin flows to and through that pipe. Basins can be drawn very large such as the eastside of the city versus the westside. They can also be drawn very small, with a single street or neighborhood as a basin. These six regional basins were chosen because they share some common characteristics and form a basis for discussing the wastewater system as a whole. Each regional basin contains a unique mix of wastewater infrastructure. Table 5.1 summarizes the basin's wastewater characteristics.

Table 5.1 Wastewater Characteristics of each Basin

Characteristics	Central	East	Northeast	Southeast	Far West	Near West
OSS within 200' of sewer	29	360	82	432	106	136
Total OSS	48	1,306	228	1,930	488	282
STEP Systems	23	370	34	1,220	118	34
Grinder Pumps	12	41	28	63	86	59
Lift Stations (including City and LOTT owned)	2	6	5	8	10	5
Percentage of basin served by combined sewer pipes	56%	8%	16%	3%	0%	0%
Single-family Residential Customers	899	2,321	1,847	3,280	3,025	2,539
Multi-family Residential Customers (# of apartments)	73 (1,425)	171 (1,843)	34 (348)	51 (494)	329 (3,522)	92 (1,380)
Commercial Customers	377	527	56	36	401	132
Total Sewer Customers	1,349	3,019	1,937	3,367	3,755	2,763
% Basin Undeveloped	5%	14%	9%	15%	11%	12%

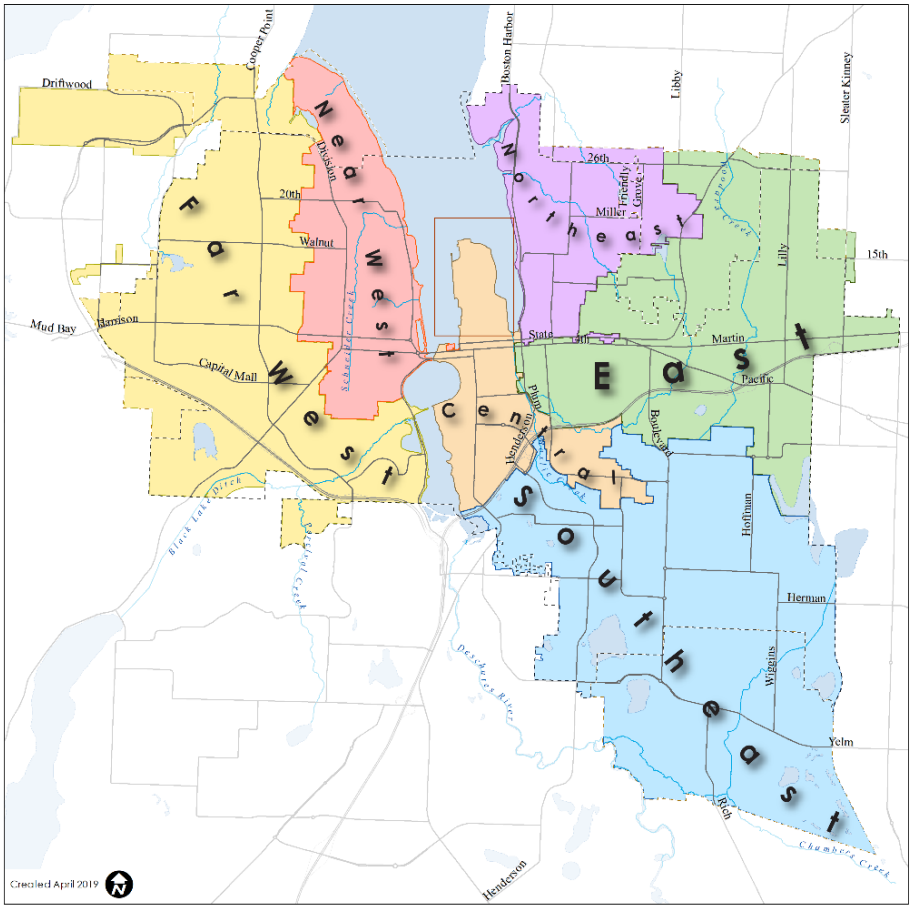

Figure 5.1 Olympia's Regional Wastewater Basins

5.1 Central Basin

The Central basin (Figure 5.2) encompasses the older developed areas of Olympia. It is dominated by the central business district; the Ellis, Mission and Indian Creek watersheds on the east and south side; and that part of the near west side of the City and its Urban Growth Area (UGA) that drains to Capitol Lake or Budd Inlet. Population and business density in the basin is high.

The precipitation, surface water and ground water within the Central basin discharge to Budd Inlet. Most the City's water quality monitoring data focus on Budd Inlet and its tributary waters. Budd Inlet is the focus of extensive technical analysis and regulation.

Much of this basin is already developed (86%) with future development largely limited to redevelopment and small new developments. Wastewater flows are not expected to increase appreciably. The anticipated increase in peak wastewater flows is only one percent through 2025. Nearly all of this projected increase is expected to come from residential infill and commercial development/redevelopment. The existing wastewater system in the Central basin typically has adequate capacity and facilitates the connection of new development to sewer service.

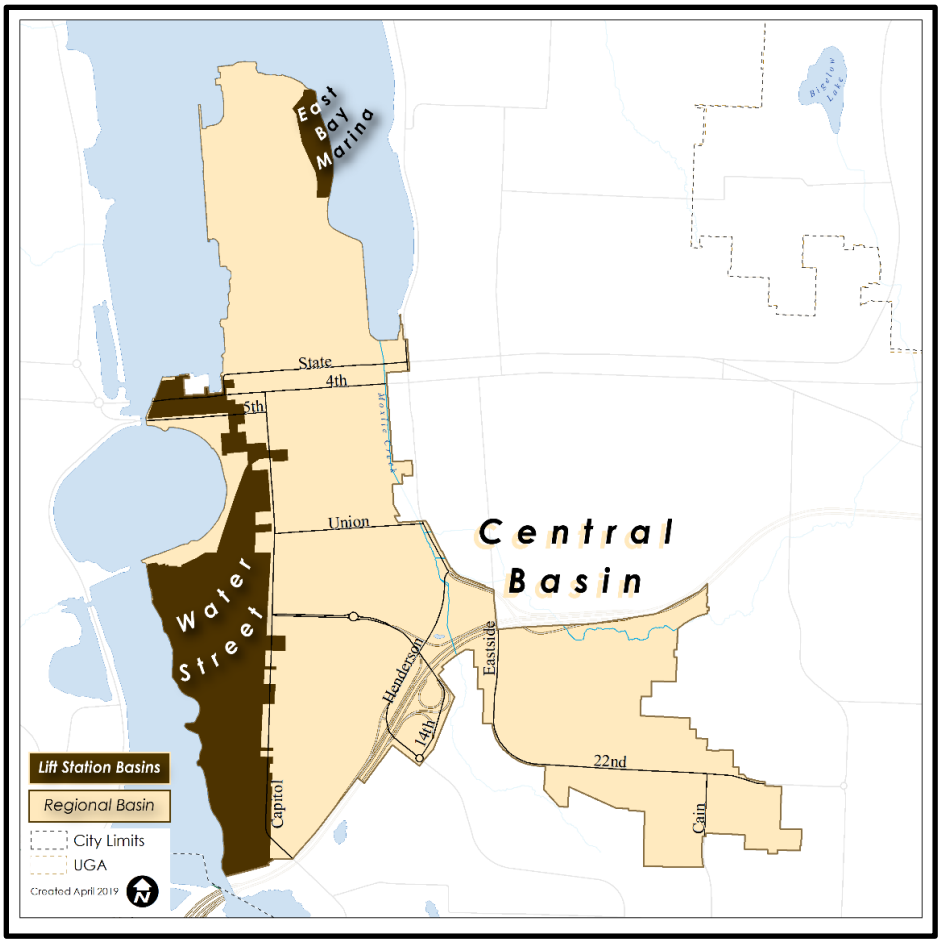

Figure 5.2 Central Basin

The main challenge with the wastewater system in the Central basin is its age. Many pipes are well over 50 years in age and some are more than 100. With age, the pipes become susceptible to structural deterioration, collapse, and increased infiltration and exfiltration. Infiltration occurs when groundwater enters the sewer pipe through cracks. Similarly, wastewater can leave the pipe and enter soils and groundwater (exfiltration). Operation and maintenance needs in the basin are typically greater and more intricate than in other basins.

The Central basin also contains the City's highest percentage of combined wastewater/stormwater pipes. The combined system collects stormwater from streets and buildings and routes it to the LOTT Clean Water Alliance's Budd Inlet Treatment Plant through sewer pipes. Stormwater flows tax the capacity of otherwise adequately-sized sewer pipes. A number of areas are projected to have capacity issues in the event of a major rain event. These areas are addressed in **Chapter 10**.

Two lift stations, including the large Water Street station, are essential to the operation of the Central basin wastewater system. The service areas of the lift stations (LS) are delineated in Figure 5.2.

Given its evolution over time, the Central basin's wastewater system is complex and sometimes challenging to analyze. The management of these pipe systems focuses on refining Utility staff's understanding of the system and maintaining its integrity as it ages. Pipe maintenance and upgrades in this basin are costly.

The basin has only 23 STEP systems, 12 grinder pumps systems and 48 OSS, leaving the vast majority of the basin served by gravity sewer.

The complex, aging public infrastructure creates the potential for water quality impacts to Budd Inlet. State efforts through Clean Water Act water quality studies are underway to improve water quality in Budd Inlet. From a water quality perspective, the Central basin is carefully managed to prevent spills, correct unintentional cross connections with stormwater systems, and ensure the structural integrity of the pipes.

5.2 East Basin

The East basin (Figure 5.3) is located east of the Central basin. It includes some of the oldest residential neighborhoods in Olympia as well as the commercial corridor on both sides of Martin Way. Development pressure remains strong in this basin. New development in the basin will include subdivisions such as the Village at Mill Pond, infill, redevelopment, and some light commercial. The Lilly Road area also includes the Providence/St. Peters Hospital and Kaiser Permanente Medical Center, along with ancillary medical practices in the vicinity.

The East basin is partially within the Henderson Inlet Shellfish Protection Area, a water quality and shellfish harvesting priority. Precipitation and surface water split with the northern part draining to Woodard Creek and subsequently to Woodard Bay in Henderson Inlet while the southern part drains to Indian Creek and from there to Budd Inlet. Historical bacterial contamination in Henderson Inlet has declined and the shellfish beds are productive and commercially viable. Management of public and private wastewater systems is a key aspect of maintaining the Inlet's shellfish industry.

The wastewater system in the East Basin is comprised of a fragmented mix of gravity sewer pipes, lift stations, STEPs, grinder pumps, and OSS. The basin's inconsistent topography resulted in this mix of wastewater technologies. The basin has a large number of STEP systems (370), grinder pumps (41) and OSS (1,305) for its total area.

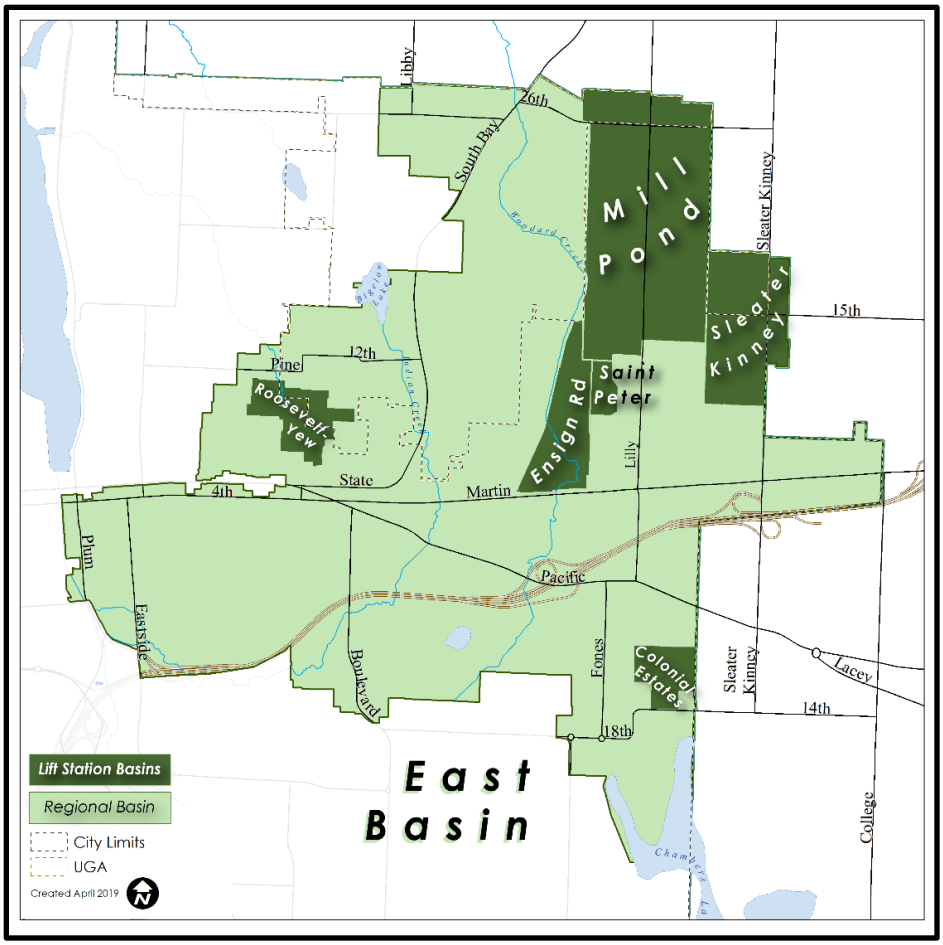

Figure 5.3 East Basin

As development continues, the East basin may struggle to extend sewer infrastructure, especially in the South Bay Road area. See **Appendix J** for a map showing future lift station areas and major infrastructure. Successful water resource management will focus on connection of new development to sewer service as well the conversion of OSS.

5.3 Northeast Basin

The Northeast watershed basin (Figure 5.4) can be challenging from both wastewater and water resource management perspectives. Both topographical and development patterns make wastewater systems difficult to link into a regional system. Areas of relatively low development density and pockets of OSS hamper the orderly expansion of the wastewater system.

Precipitation and surface water drain to Budd Inlet through various creeks including Moxlie Creek.

Streams generally flow south to north. The main sewer pipes in the basin flow north to south, along East Bay Drive. Secondary sewer pipes and lift stations collect and transport wastewater into these main pipes. Flows subsequently travel west in the LOTT pipes. Sewer pipes in the basin range from older to contemporary.

This basin is projected to experience a lower rate of development over the next 25 years. Development becomes increasingly residential, and less dense, in the northern portions of the basin. Light commercial development is scattered throughout.

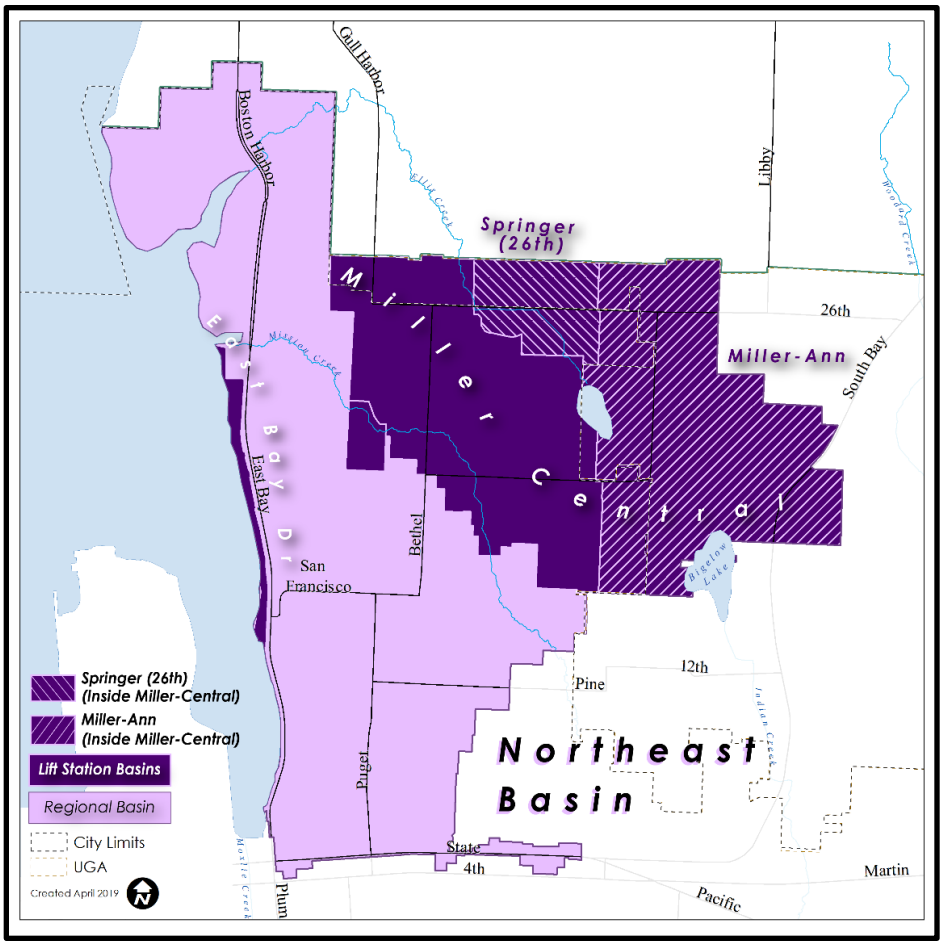

Figure 5.4 Northeast Basin

The Northeast basin has 10 STEP systems, 28 grinder pump systems and 228 OSS. In general, the OSS are located more than 200 feet from an available sewer pipe. See Appendix J for a map showing future lift station areas and major infrastructure.

5.4 Southeast Basin

The Southeast basin (Figure 5.5) includes some of the initial residential neighborhoods that were developed as Olympia spread to the southeast in the 1950s – 1970s. Development pressure remains strong in this basin. New development will include subdivisions, infill, redevelopment and some light commercial. Peak flows in this basin are expected to increase more than other basins over the next 20 years. Planning for these flows is important to the orderly operation of the Wastewater Utility.

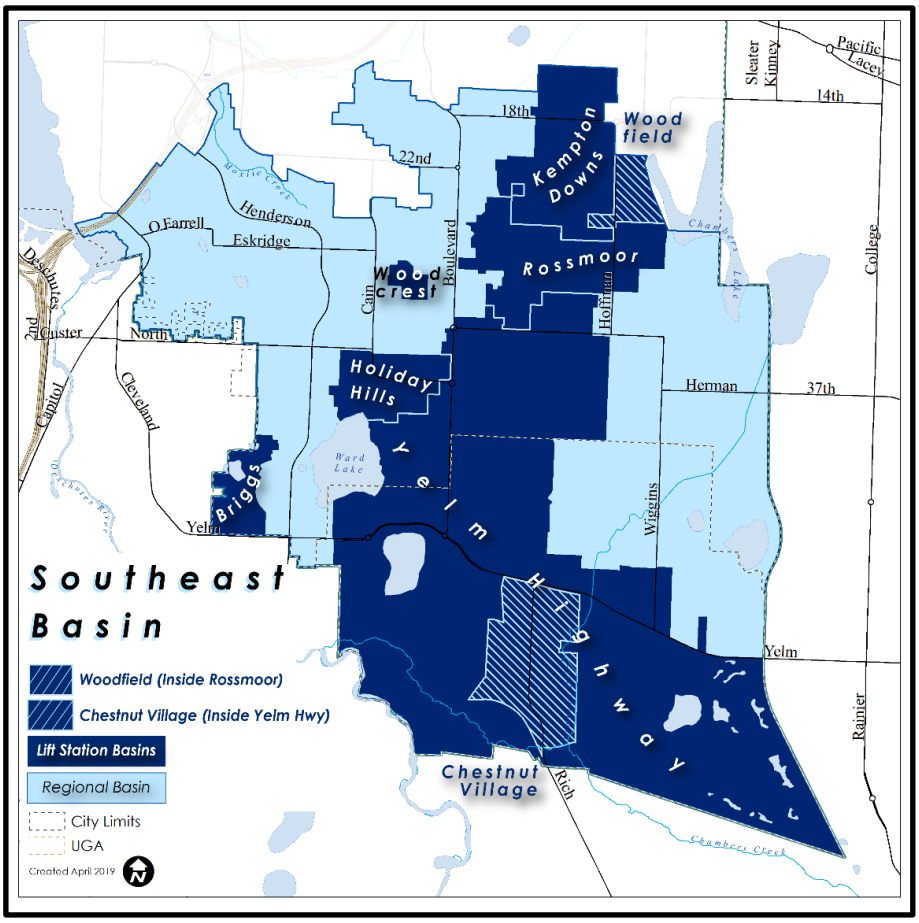

Figure 5.5 Southeast Basin

This basin, characterized by its flat topography, has been the focus of considerable STEP system development since the mid-1990s. Additionally, many of the older residences in this basin are served by OSS. There are 1,220 STEP systems, 63 grinder pump systems and 1,930 OSS in the basin. OSS are typically distant from the gravity flow portion of the wastewater system.

Stormwater and surface water in the Southeast basin mainly discharge to the Deschutes River and ultimately Budd Inlet. Some of the storm and surface water drains to kettles such as Ward Lake and Hewitt Lake. Other water bodies include portions of Chambers Lake and Chambers Creek, which discharges into the Deschutes River. The river is a major contributor of flows and potential contaminants to Budd Inlet. The basin's topography requires several lift stations. Ongoing new development in the basin prompts the need for carefully managed sewer infrastructure extensions.

As development continues, the Southeast basin may struggle to extend sewer infrastructure, especially in the Chambers Prairie area. The area around Wiggins Road and south of Yelm Highway will need to be served by pumps, either through lift stations or individual pumps. See **Appendix J** for a map showing future lift station areas and major infrastructure.

5.5 Far West Basin

The Far West basin (Figure 5.6) includes newer neighborhoods of west Olympia, and much of the Westside commercial district. With both redevelopment and new development forecast for this basin, sewer flows in the basin will increase.

Surface water flows in the Far West basin discharge to Green Cove which is connected to Eld Inlet to the north. To the south, water flows to Black Lake Ditch, Percival Creek, Capital Lake, and finally Budd Inlet. The Percival Creek system is the City's largest stream and the most viable for salmon. Bacteria levels in the stream are typically low, potentially reflecting the extensive wastewater system and low number of OSS (489) in the basin. The relatively high water quality of Eld Inlet warrants continued protection as urban scale development extends to the west of Olympia. In order to help protect its aquatic resources, the City has enacted special zoning and development requirements for the Green Cove basin.

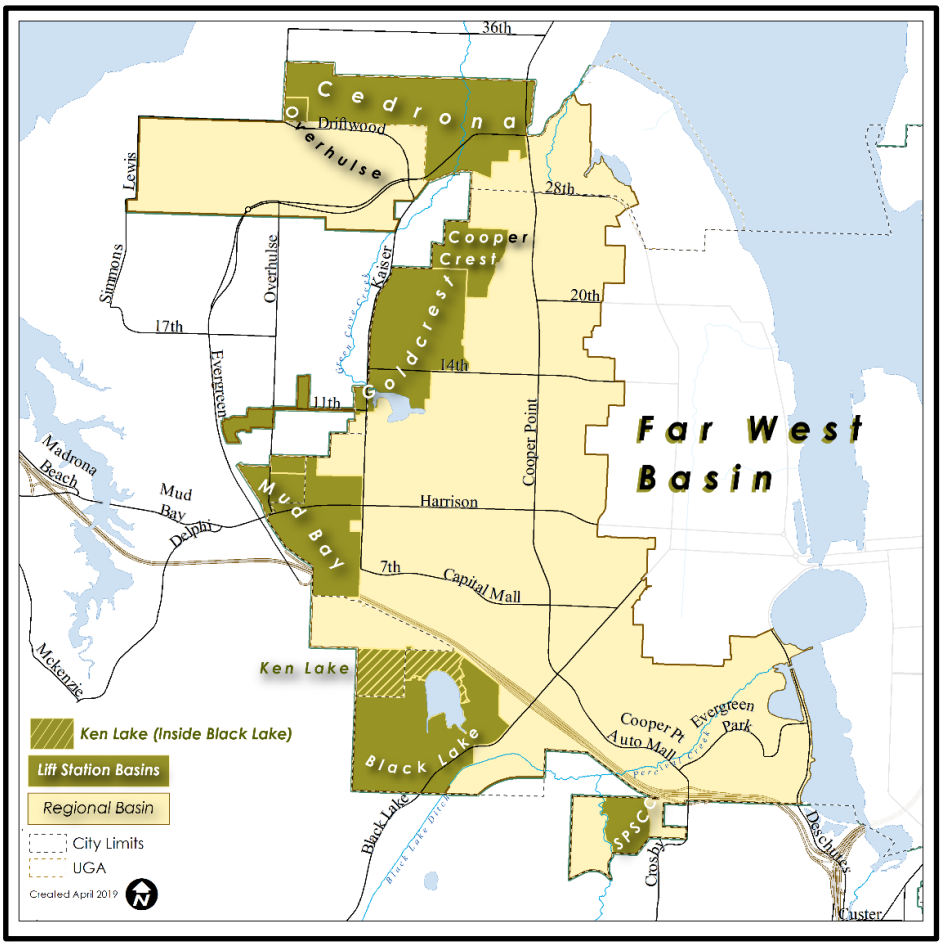

Figure 5.6 Far West Basin

Older wastewater infrastructure dominates the residential neighborhoods of West Olympia. Conversely, the newer neighborhoods, commercial and multifamily areas are typically served by newer pipe systems including 118 STEP systems. The topography of the basin supports extensive use of gravity pipe systems as well as a number of lift stations. The wastewater system in the basin is generally able to accommodate growth.

Future wastewater management will focus on maintaining the older residential wastewater system and ensuring the orderly extension of new sewer infrastructure. Key challenges for this basin focus on providing sewer infrastructure extensions to the low-lying areas. See **Appendix J** for a map showing future lift station areas and major infrastructure.

5.6 Near West Basin

The Near West basin (Figure 5.7) is dominated by some of the oldest neighborhoods in the city. The surface and groundwater flows from the basin discharge to Schneider Creek, other smaller creeks and eventually Budd Inlet.

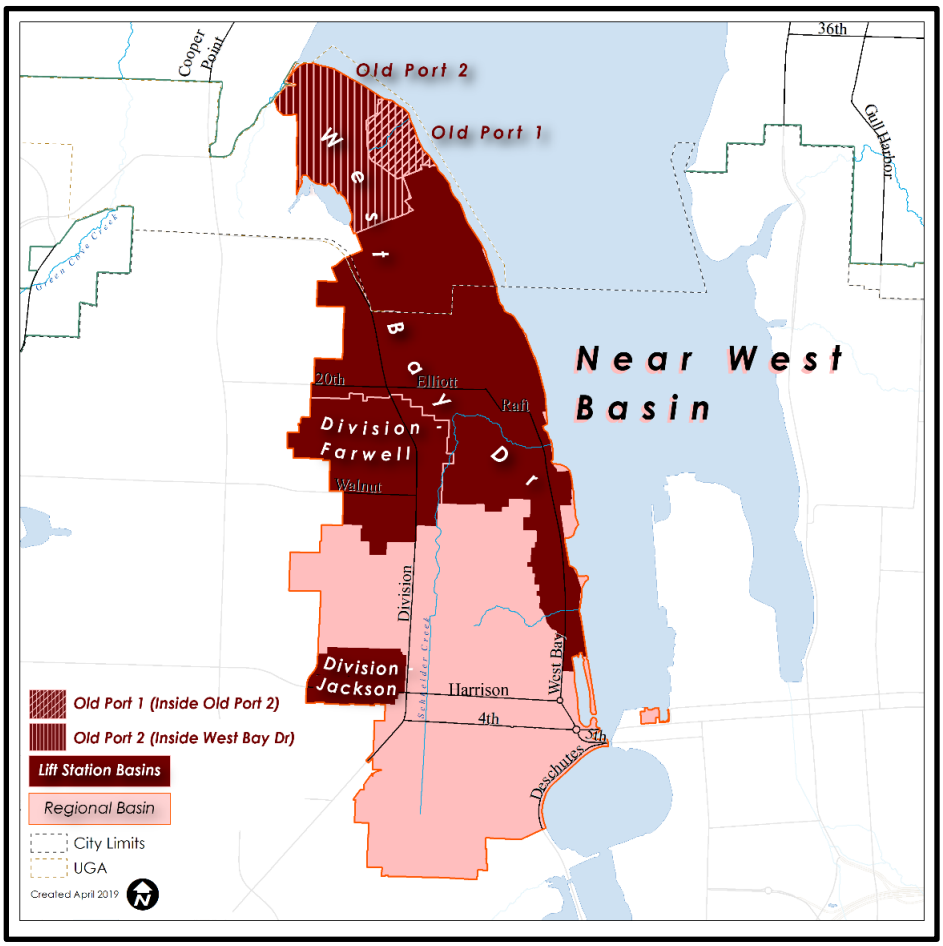

Figure 5.7 Near West Basin

The basin includes 34 STEP systems, 59 grinder pump systems and 282 OSS, mainly located in the north half of the basin. Key challenges for this basin focus on management of older infrastructure and inflow and infiltration.

A few areas in this basin are projected to have capacity issues in the event of a major rain event. These areas are addressed in **Chapter 10**.

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Management Programs

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CHAPTER 6 – MANAGEMENT PROGRAMS

This chapter describes the Wastewater Utility's role and relationships within Olympia's Public Works Department and the overall City structure, its staff structure, and the Utility's six core services.

6.1 Organizational Relationships

Olympia's Public Works Department is organized into five lines of business: Water Resources, Waste ReSources, Engineering, Transportation and General Services. The three water-related utilities (Drinking Water, Wastewater, and Storm & Surface Water) are managed under the leadership of Water Resources (see Figure 6.1 below). The Reclaimed Water Program is part of the Drinking Water Utility.

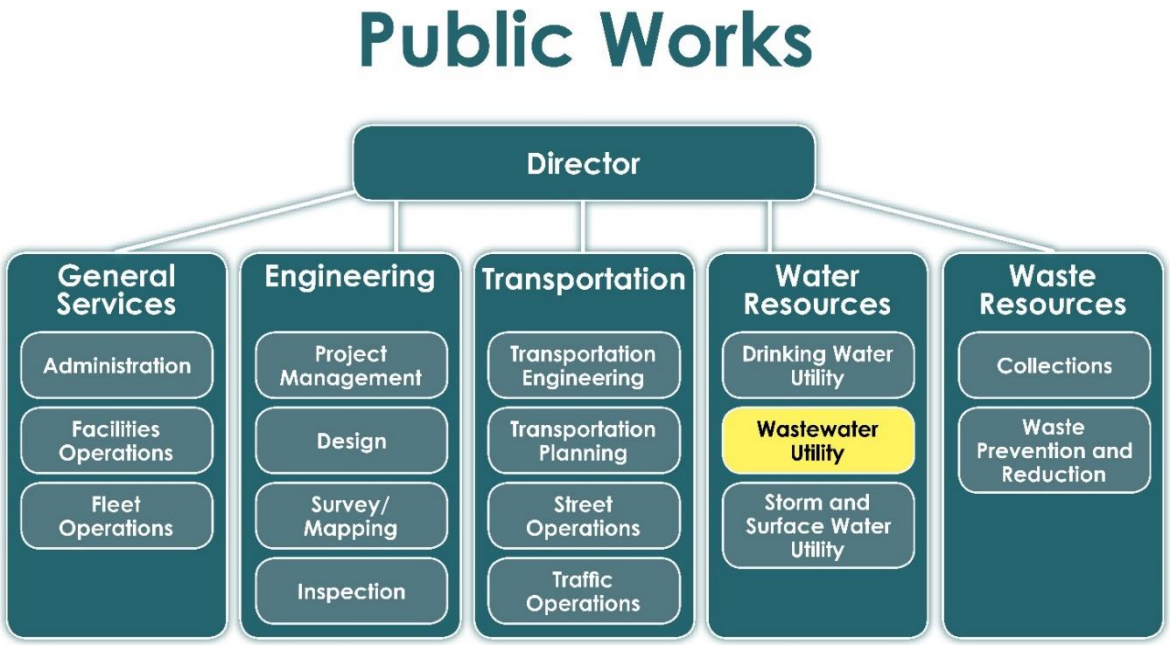

Figure 6.1 Organizational Relationships

Engineering supports Water Resources and the other lines of business by providing capital facilities engineering, design and construction management.

The Wastewater Utility is also supported by other City departments including:

- General Government - Oversight of City policies and legal issues as well as coordination of emerging issues.
- Administrative Services – Geographic information services (also known as mapping), billing, payroll, financial planning and cash management.
- Community Planning and Development - Implementation of development regulations and long-range community planning.

Like other City utilities, the Wastewater Utility is responsible for its share of the City's overhead expenses. These include a portion of the costs of Public Works administration and other City departments (e.g. City manager, legal and administrative services; computer and telephone networks; building rental, vehicles, insurance, maintenance and janitorial services).

6.2 Staff and Core Services

Staffing

Each of Olympia's three water-related utilities provide a broad range of services employing diversely skilled workers. The keys to the success of the Wastewater Utility is both effective operation and maintenance of the wastewater infrastructure, and broad range planning, engineering and implementation services.

Given the relatively small size of the City, water-related utility staff often share operation and maintenance responsibilities as needed. Additionally, the technical office staff of the Storm & Surface Water Utility and Wastewater Utility coordinate and share expertise.

The operation and maintenance of wastewater infrastructure, including lift stations, relies upon 11.3 full-time equivalent staff positions (FTEs). These staff service the infrastructure. Typical duties include pipe televising and cleaning, pipe repairs, STEP system and lift station maintenance, and emergency response. **Chapter 7** is dedicated to a detailed discussion of operation and maintenance work and needs.

Additionally, the Wastewater Utility employs 2.1 (FTEs) dedicated to planning, engineering and implementation: 0.3 FTE for the Engineering & Planning Manager, 1.25 FTEs for two Water Resources Engineers, 0.3 FTEs for a Senior Planner, and 0.25 for a GIS (mapping) Specialist. These staff members evaluate the wastewater infrastructure and support the overall wastewater program. They are responsible for the various utility core services, except Operations and Maintenance, described below. (See Figure 6.2 below.)

Water Resources - Wastewater Utility				
Program Staffing	***FY 17 Actual***	***FY 18 Actual***		***FY 19 Budget***
Data Control Specialist	0.375	0.375		0.375
Engineering & Planning Supervisor	0.33	0.33		0.33
Inventory Control Specialist I	0.13	0.13		0.125
Lead Worker	1.25	1.25		1.25
Line of Business Director	0.24	0.24		0.24
Maintenance Technician	2.00	2.00		2.00
Maintenance Worker I	1.00	1.00		1.50
Maintenance Worker II	4.50	4.50		4.50
Office Specialist III	0.24	0.24		-
Operations Supervisor	1.00	1.00		1.00
Program Assistant	0.24	0.24		0.48
Program Specialist		0.25		0.25
Project Engineer II	1.25	1.25		1.25
Remote Systems Technician	0.75	0.75		0.75
Senior Planner	0.33	0.33		0.33
Total	**13.635**	**13.885**		**14.380**

Figure 6.2 Wastewater Utility Staffing

Core Services

Since the adoption of the 2013 Wastewater plan by City Council, the Plan's goals, objectives and strategies have been implemented through the six core services described below.

The intent of this 2019 Plan is to continue using the six core services to implement the strategies outlined in **Chapter 9**, providing a comprehensive wastewater program integrated with other City water-related work efforts.

The core services are:

1. Planning, Policy and Program Management (PPPM). Planning for long-term needs, developing policies, managing programs and information, and annual budgeting.
2. Capital Facilities Program (CFP). Planning, scoping, budgeting, tracking and monitoring construction of public infrastructure projects.
3. Operation and Maintenance (O&M). Maintaining sewer pipes, lift stations, STEP systems and community onsite sewage systems (COSS); conducting ongoing condition assessments of pipes; responding to sewer overflows and other emergencies; and constructing small-scale repair projects.
4. Development Review, Code Enforcement and Technical Assistance (DR/CE/TA). Implementing wastewater regulations for new and existing private development; giving technical support to staff, customers and developers.
5. Monitoring, Research and Evaluation (MRE). Tracking environmental health implications of wastewater management. Ensuring that the program incorporates new technologies as they become available.
6. Public Involvement and Education (PIE). Involving and educating customers and the community on water resource issues such as conserving and reusing water, converting septic systems, also known as onsite sewage systems (OSS), to public sewer, finances and reducing solid waste.

Figure 6.3 illustrates how these core services function in concert. Along with O&M, PPPM develops and manages plans, policies and programs, in response to City policies, state/federal regulations and identified Wastewater Utility needs. These are implemented by CFP and O&M (public infrastructure), DR/CT/TA (private infrastructure and customers), and PIE (citizens and businesses). The results in terms of program effectiveness are monitored by MRE, which feeds information back to O&M and PPPM for use in modifying policies or programs.

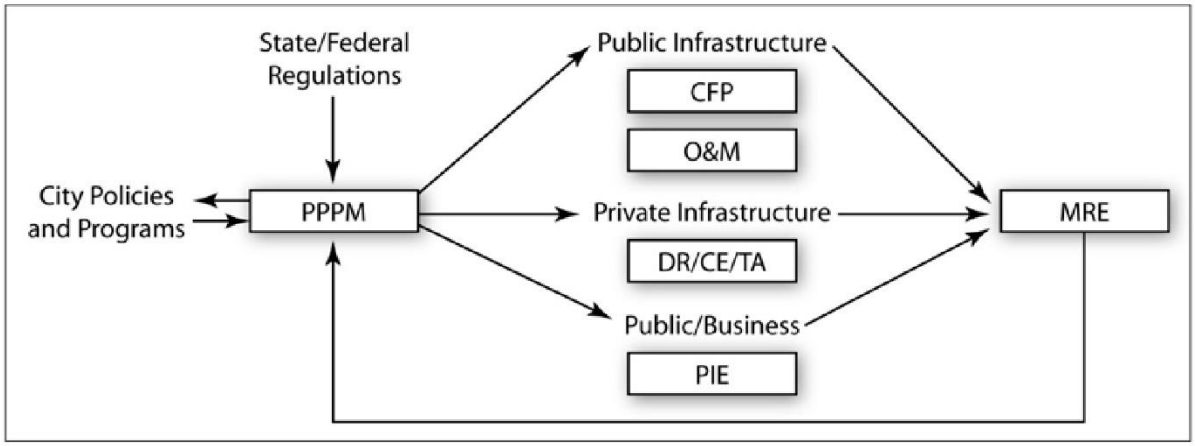

Figure 6.3 Relationships between Wastewater Utility Core Services

Wastewater Program Outcomes

Implementation of this Plan's goals, objectives and strategies will provide a comprehensive wastewater program integrated with other City water-related work efforts.

Specifically, the program will be able to:

- Proactively understand, plan for and construct needed infrastructure.
- Operate and maintain the infrastructure so that public and environmental health is protected.
- Coordinate water quality improvement efforts with others involved in surface and groundwater management.
- Provide technical assistance to residents interested in converting from OSS to sewer service.
- Plan for and manage sewer service in support of both new development and re-development.
- Manage Utility funds responsibly and equitably.
- Respond to emerging issues.
- Communicate effectively with the community.

The following sections of this chapter describe each core service in more detail, including typical actions. Staff of the core services work together to address the objectives identified in **Chapter 9**.

6.3 Planning, Policy and Program Management

Planning, Policy and Program Management helps coordinate the services of the Wastewater Utility. This core service supports all Wastewater Utility services, consistent with the City and utility goals and strategies. Utility staff provide analysis and technical support to develop and employ best practices in wastewater management policies and programs. The work assists Operations and Maintenance in short and long work efforts.

Much of the Wastewater Utility's work focuses on resolving a conflict or issue sustainably, i.e. taking into account the protection of public and environmental health while minimizing financial impacts to individuals, developers and rate payers. This is an essential aspect of integrated water resource planning and engineering, particularly in an increasingly urban setting.

Typical actions are:

1. Manage implementation of the Wastewater Management Plan. Utility staff help keep program core services oriented towards overall City goals and policies.
2. Analyze existing policies and potential revisions, interpret regulations and help implement necessary changes. Wastewater policies and associated regulations are often complex and challenging to implement on a case-by-case basis. The financial interests of individual property owners, developers and the City can conflict as the challenges of collecting and conveying wastewater from increasingly outlying areas to LOTT Clean Water Alliance (LOTT) regional facilities become more demanding.
3. Provide policy and technical resources to manage emerging issues and needs.
4. Maintain staff relationships with LOTT and neighboring jurisdictions in order to address common issues such as shared water quality challenges in overlapping watersheds, planning for emergency response, providing sewer service to areas not currently served, budgeting/rate setting, and long-range planning.

6.4 Capital Facilities Planning

Capital facilities are publicly-funded construction projects that meet a community need, such as safely conveying wastewater from homes and businesses to treatment facilities. The City's capital facilities planning is based on a thorough understanding of the function and condition of existing infrastructure, and includes forecasting future needs and responding to unanticipated problems.

Typical capital projects are repair or construction of gravity sewer pipes, lift stations and force mains (pressurized pipes) and STEP force mains. Capital projects are financed through utility rates, general facilities charges (GFCs) paid by new development for connecting to and utilizing existing City wastewater infrastructure, bonds and loans. See **Chapter 10** for more information regarding the development of the Capital Facilities Plan for the Wastewater Utility.

6.5 Operations and Maintenance

The Wastewater Utility's Operations and Maintenance services are familiar to many people, who see crews at work cleaning, televising (using a motorized camera inserted into a sewer pipe to check the pipe's condition) and maintaining gravity sewer pipes and facilities. The Utility's field crews maintain, repair and upgrade the City's extensive wastewater infrastructure to prevent spills and repair leaks.

Operations and maintenance is important to the infrastructure-dependent Wastewater Utility, accounting for over 34% of the Utility's budget in 2018. **Chapter 7** provides detailed information regarding this core service, including typical actions and emerging needs.

6.6 Development Review, Technical Assistance and Code Enforcement

This core service focuses on the review of new wastewater facilities that will connect to and/or become public facilities, technical assistance for existing systems on private property, and actions on violations.

Typical actions are:

1. Review proposed new wastewater infrastructure. Utility staff work with property owners and developers during design review to ensure compliance with local and State wastewater regulations, and provide technical support to the City's Community Planning and Development Department (CP&D) permitting and inspection processes. Utility staff focus on managing wastewater flows in accordance with long-term utility goals for utilizing existing pipe capacity, minimizing lift stations, and increasing the potential to serve areas of infill and OSS.
2. Provide technical assistance to wastewater customers. As wastewater concerns and regulations become more complex and demanding, more customers request assistance from the City. Staff assist with such issues as replacing side sewers, identifying maintenance methods and responsibilities, converting from OSS to sewer service, controlling odors, maintaining STEP systems and managing OSS. Resolving concerns from the development community and residents requires detailed knowledge about the wastewater system.
3. Enforce illicit discharge and pretreatment regulations. Illicit discharges to the public sewer system degrade water quality, expose the public to potential public health threats, increase maintenance needs, impact LOTT's Budd Inlet Treatment Plant performance, and may violate stormwater permit requirements. For example, the discharge of fats, oils and grease from food establishments clogs downstream pipes, increasing the need for routine maintenance and emergency response.
4. Provide mapping support. Supported by the City's Information Technology group, Utility staff manage and support digital information related to the Wastewater Utility, for use by various planning, CP&D and O&M staff.

6.7 Monitoring, Research and Evaluation

This core service helps accumulate and analyze information needed to plan, implement and evaluate the effectiveness of the Wastewater Utility, and keeps the Utility up-to-date with current and emerging wastewater technology. It also helps integrate wastewater practices with other water resources responsibilities such as protecting water quality.

Typical actions are:

1. Provide resources for wastewater-related surface and groundwater monitoring. Unintended discharges from sewer pipes and OSS are often diluted and intermittent, yet capable of closing shellfish beds, violating surface water standards and making groundwater undrinkable. Monitoring and isolating problems is often time consuming. As needed, utility staff supplement existing City environmental monitoring programs, especially the Drinking Water Utility's Groundwater Protection Program and the Storm and Surface Water Utility's Stormwater Ambient Monitoring Program.
2. Develop and maintain information systems for OSS management. This includes maintaining a database of OSS locations and tracking failures, inspections, and conversions to sewer service. Staff coordinate this information with Thurston County records and reporting systems.
3. Explore and evaluate new and innovative wastewater technology. Utility staff actively pursue potential new technologies that can enhance the Utility's ability to provide sewer service to its customers, determine the feasibility and cost-effectiveness of the technology, and make recommendations for its application in Olympia.

6.8 Public Involvement and Education

Public and environmental health requires a participatory and responsible community. Public involvement and education activities are supported by the City of Olympia as an essential service of resource management programs.

Typical actions:

1. Support implementation of Plan priorities, particularly incentives options available for conversion of OSS to sewer service. This includes informing OSS owners of incentives and opportunities for conversion of existing systems to sewer service.
2. Keep customers informed about Wastewater Utility activities, including regulatory and rate changes. The Utility's primary communication tools are Wastewater Utility bill inserts, web page announcements, media releases, door hang tags, and direct mail.
3. Coordinate with regional partners including LOTT in planning and implementing wastewater educational activities. In past years, the Wastewater Utility has helped fund OSS maintenance workshops.
4. Inform and involve customers and other stakeholders in wastewater planning activities. In partnership with other utilities, Wastewater Utility staff strive to keep the community informed on water resource issues such as conserving and reusing water, maintaining OSS and converting OSS to sewer service. Activities include direct mail to stakeholders, media information, focus groups and workshops.

Chapter 7
Operations & Maintenance

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CHAPTER 7 – Operations and Maintenance

Wastewater Utility staff are responsible for all day-to-day operations and maintenance (O&M) activities associated of the Utility. This includes approximately 224 miles of sewer pipe (both gravity and pressurized pipe) ranging from two to 42 inches in diameter; more than 4,000 manholes and 1,100 cleanouts; 31 sewer lift stations; approximately 1,800 residential, commercial and multi-family STEP systems; and one community septic system, also known as a community onsite sewage system (OSS). This chapter discusses O&M staff organization, and O&M activities: routine and preventive maintenance, computerized maintenance management, small-scale repair projects, emergency response, and training and emerging trends and needs.

7.1 O&M Staff Organization

Wastewater Utility O&M staff draw from two work groups in the Public Works Department. Wastewater/Stormwater Operations staff operate and maintain both wastewater and stormwater collection systems (including gravity sewer pipes; force mains (pressurized pipes); catch basins and manholes; STEP tanks, mains and side sewers; and the community OSS). Additionally, a pump crew supervised by Pump Stations Operations maintains all wastewater lift stations. Allocating staff time based on similar kinds of work and required skills across the Utilities has proven effective in making the most of limited resources. Cost and funding is managed separately for the various work efforts.

The Wastewater Utility funds 11.3 FTEs for the operation and maintenance activities listed below. Some employees are partially funded and used by the Stormwater and/or Water Utilities thereby making a full position.

- Wastewater Operations Supervisor (0.5 FTE).
- Pump Stations Supervisor (0.5 FTE)
- Wastewater Lead Worker (1.25 FTE).
- Data Control Specialist (0.375 FTE).
- Inventory Control Specialist (0.125 FTE)
- Maintenance Worker II (4.5FTE). Assigned to: one Residential STEP, one CCTV Program, one Cleaning and Inspection, and one Construction and Repairs.
- Maintenance Worker I (1.5 FTE). Assigned to cleaning and inspecting pipes and maintaining lift stations.
- Maintenance Technician (2 FTE). Assigned to wastewater lift station O&M.
- Remote Systems Technician (0.75 FTE). Assigned to operation and maintenance of the wastewater telemetry system, as well as controls and electrical equipment.

7.2 Operations and Maintenance Programs

Regular and focused operations and maintenance of the wastewater system ensures continuous, uninterrupted service for utility customers. Pipes, pumps, and structures can become damaged and/or are susceptible to accumulation of sludge, fats/oils/grease, soil, debris, as well as roots. Neglecting maintenance of this system can result in blockages which puts the public and the environment at risk from overflows. It is the responsibility of the Wastewater Utility to perform proactive preventative wastewater

system maintenance in order to provide for the safety and well-being of the community, as well as the environment.

Cleaning and Inspections

Cleaning and inspection of gravity sewer pipes and manholes is the primary method used by the City to ensure efficient and unobstructed sewer flows. This work is performed by a two person crew using a specialized vacuum/jetter truck capable of water jetting pipes and retrieving the materials.

On an annual basis, the cleaning and inspection program completes:

- Routine cleaning of approximately 225,000 feet of gravity sewer pipes (10%).
- Removing roots in approximately 30,000 feet of pipe (33%).
- Cleaning approximately 27,000 feet of problematic pipes, mainly due to low flow, flat slope, and/or grease (100%).
- Cleaning and inspecting 797 manholes (20%).
- Cleaning and inspecting 34 wet-wells (100%).

Additionally, the cleaning and inspection crew performs the following:

- Construction and engineering support (Hydro-excavating utilities)
- Internal and external spill response, clean-up, and investigation.
- CCTV support

Closed Circuit Televising (CCTV) and Condition Rating

The Utility's assesses of gravity sewer pipes by a one-person television inspection van equipped with closed circuit televising equipment capable of withstanding the conditions commonly found in gravity sewer pipes. The primary operator is trained using industry standard condition rating methods such as Pipeline Assessment Certification Program coding and GraniteNet software. Wastewater engineering staff manage the condition rating information and initiate, schedule and prioritize most minor and major repairs.

O&M crews and engineering staff use television inspection and condition rating of gravity sewer pipes to evaluate structural integrity and identify O&M and construction features. The ability to see the underground pipe condition is essential to effective management.

The televising system gives staff the ability to look at pipes and document its design and intricacies. The distance that the underground camera travels is recorded, allowing staff to locate pipe features and problem areas. Using industry standards, the structural condition of the pipe can be assessed and documented. With repeated televising, changes in the condition of a pipe over time are tracked.

The televising and condition rating program feeds staff with a list of priority repairs. Some of the repairs are small and can be corrected by City construction and repair staff. Others evolve into extensive design and construction projects. Regardless of the project's scale, the condition rating program catches problems and facilitates their timely correction.

The City has televised and condition rated well over 99% of the gravity sewer pipes since 2005. This has created operational capacity for the CCTV program to support other programs such as Cleaning and Inspections, Construction and Repairs, as well as function as the primary tool used to respond, investigate, and assess side sewer ownership questions and requests.

Construction and Repairs

A two-person crew performs construction and repair of the wastewater system. This crew conducts preventative maintenance, small-scale wastewater system repairs, and minor construction projects in accordance with State law. Work orders are typically generated from the Cleaning and Inspections or CCTV

programs, are prioritized and reviewed by an engineering and operations team (WWoPS), and are then scoped, planned, completed, and documented by the Construction and Repair crew, with oversight from a lead worker. This construction ability provides the high quality and timely repairs needed to keep utility customers in service.

Annual in-house repairs typically includes the following:

- Approximately 80-90 pipe repairs
- 2-5 manhole repairs, replacements or new installations

Additionally, the Construction and Repair crew typically performs the following:

- 658 wastewater valve inspections (100%)

STEP Systems

The City owns and operates approximately 1,800 STEP systems located on individual privately- owned parcels (for details see **Chapter 3**), including 25 commercial and multifamily systems. STEP systems serve approximately 9 percent of the Utility's residential sewer customers.

Maintenance of these systems is labor intensive. Systems are typically located near the street within the yards of individual residences. Residential STEP systems are scheduled for maintenance and removal of solids once every seven years and commercial STEPS every one to six years, depending on size and use. Regular maintenance includes pumping the tank and removing and cleaning of screens, pumps and level controls. Maintenance of STEP systems requires one dedicated staff person as well as contractor services for tank pumping.

Operational problems with individual STEP systems can result in overflows. With this in mind, a system failure prompts the resident to notify wastewater staff. In turn, a staff member inspects and repairs the system, often after hour normal work hours. Given the high number of systems in the City, a relatively high level of maintenance is needed to minimize time-consuming and costly emergency responses. Significant strides have been made in recent years to bring maintenance and emergency responses down to manageable levels.

Annual STEP system maintenance typically includes the following:

- 268 Residential STEP systems pumped, inspected, and maintained.
- 12-18 Commercial STEP systems pumped, inspected, and maintained.

Additionally, STEP system O&M staff perform the following:

- 61 Air relief valve assemblies (ARV) inspected annually (100%).

Lift Stations

Lift (pump) stations and force mains are used to convey wastewater from a low point in the wastewater system to a higher elevation from which it can continue flowing by gravity. The City currently owns and operates 31 lift stations. Failure of any of the critical lift station components can lead to significant, ongoing wastewater overflows.

Electronic telemetry, also known as Supervisory Control and Data Acquisition (SCADA) equipment, monitors operations continuously at each lift station and signals any malfunction to the SCADA communications center at the City's Maintenance Center. A telemetry failure prompts an immediate response by O&M personnel. The number of wastewater lift stations in concert with the extensive drinking water pumping system necessitates effective telemetric monitoring of the stations.

The Pump Stations crew checks each lift station monthly to verify proper operation and ensure emergency preparedness. The crew also completes many mechanical and electrical improvements to the stations including:

- Pump replacements
- Emergency generator installations
- Monitoring upgrades
- Site and building maintenance

Over the course of the past ten or more years, existing lift stations have been upgraded in one form or another. These improvements are essential to providing sewer service without serious system failures. This Plan will ensure that lift station upgrades are proactive rather than in reaction to failures.

As Olympia grows, especially in outlying areas, the use and number of lift stations increases. Pump crew staffing will also need to increase.

7.3 Spill Response and Illicit Connections

When wastewater spills occur, O&M staff respond quickly in order to reduce public and environmental exposure to wastewater. Typical response efforts include: identifying the point or source of the spill, isolating the source if possible by closing a valve, rerouting, bypass pumping, or jetting a line to clear a blockage, and spill clean-up. Spill response typically includes post-event investigation to verify the cause, identify any lessons learned, and modify preventative maintenance practices as necessary to eliminate future spills if possible. All wastewater spills are reported to LOTT staff for further reporting as required. See the Emergency Response Plan in Appendix G.

When an illicit connection is suspected, O&M staff use CCTV equipment, as-builts, and historic data to identify and isolate the illicit connection in a timely manner.

7.4 Operational and Safety Training

The nature of utility work often involves hazardous conditions. As such, staff safety and technical training is a very high priority in O&M. Staff certification and training programs are in place, consistent with Washington State Wastewater Collection Personnel Association (WWCPA) recommendations. Typical WWCPA certifications by position are: Maintenance Worker I, WWC I; Maintenance Worker II, WWC II; Lead Worker, WWC III; Operations Supervisor, WWC IV. The following are certification/training standards within wastewater operations and maintenance:

- Wastewater Collection I-IV (WWC I-IV)
- Pipeline Assessment (PACP)
- NFPA 70E
- Backhoe Certification
- Forklift Certification
- Confined Space
- Competent Person
- First Aid/CPR
- Flagging/Traffic Control

7.5 Outreach and Education

In recent years, the need to increase outreach and education to utility customers has become more apparent. In addition to proactive preventative maintenance, good communication with residents about ownership, use, and maintenance of utility infrastructure is also critical for public health. Over the last few years, staff have developed handouts, fliers, and notification methods to ensure a consistent application of utility standards, procedures, and best management practices is shared with utility customers. Some examples of communication methods the utility uses are:

- Residential *STEP System Information*
- Annual STEP pumping and maintenance postcard
- Callout/Follow-up/Response door hanger
- *Side sewer ownership handout*
- *Grinder pump ownership handout*
- Grease disposal letter (targeted to known FOG problem areas)

7.6 New Technologies and Trends

Programmatic advances because of new technology have increased, especially in the area of field data collections and map accessibility. In the past, maps were accessed in the field using cellular technology and laptops. Today, smart phones and tablets are the platforms used to access utility maps in the field. The use of applications has increased tremendously to document asset condition and inspections in the field. That information can then be post-processed in the office and prioritized for repair, replacement, or monitoring.

Recently, Cityworks has been beta tested in the Drinking Water utility as a viable GIS based software tool to advance asset management within that utility. It is scheduled to be rolled out for use in the wastewater utility in the near future. At that time, Data Control Specialist support will be needed in Lift Stations.

SCADA use and technology has been proven as an effective tool for the utility, and both software and hardware upgrades are anticipated.

The use of new technology, as well as upgrading existing platforms, presents new opportunities, as well as challenges. New technology can improve processes, decisions, productivity, and overall efficiency for the utility. Often, there may be a reduction in staff time, but an increase in other operational areas needed to support the use of that technology.

The cost to operate and maintain utility infrastructure has continued to go up since the last recession. Electricity, pumps, pipe, and other operating expenses continue to rise. The utility has had no significant increase in the operating budget to compensate for the increased cost of materials since before the last plan in 2013. In order to maintain the same level of service to utility customers, operating budget increases are anticipated.

As the City begins to adapt to climate change, utility support for that effort is anticipated. Operationally, this work will emphasize protection of the combined system, as well as interlocal support for LOTT and other agencies.

Regionally, efforts are underway to begin to understand the effects of massive earthquakes and other catastrophic environmental events. Operational staff have already begun to understand and prepare for large-scale regional catastrophes. It is anticipated more effort will be needed.

Chapter 8
Long Term Challenges

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CHAPTER 8 – LONG TERM CHALLENGES

Chapter 1 focuses on the Wastewater Utility's mission (*Reliable utility service is provided at the lowest reasonable cost, consistent with the City's aims of environmental stewardship, social equity, economic development and the protection of public health.)* and how the mission relates to the City's overall Comprehensive Plan. This chapter focuses on the Utility's long term challenges.

The Wastewater Utility faces numerous challenges in providing wastewater service consistent with its mission. The 2013 Wastewater Management Plan identified nine key challenges: (1) existing infrastructure, (2) converting septic systems, also known as onsite sewage systems (OSS), to the City's wastewater system, (3) extending sewer infrastructure to new development, (4) sea level rise, (5) use of drinking water resources, (6) use of energy resources, (7) coordination with LOTT Clean Water Alliance (LOTT), (8) equitable and predictable rates and fees, and (9) public education and involvement. Since 2013, utility staff have taken major steps to address these nine challenges; however, they along with others remain to be addressed in this and future Wastewater Utility plans.

This chapter discusses the following eight challenges that the Wastewater Utility now faces and will continue to face for the foreseeable future:

1. Aging Infrastructure
2. Onsite Sewage Systems (OSS)
3. Extending Sewer Infrastructure to New Development
4. Climate Change
5. Equitable and Predictable Rates and Fees
6. STEP Systems
7. Inflow and Infiltration
8. Fats, Oils and Grease (FOG)

These challenges provide a basis for Chapter 9, which details how utility staff intend to respond to these Challenges through the goals, objectives and strategies that are the focus of this Plan.

8.1 Aging Infrastructure

Aging and maintenance-intensive infrastructure poses risks to public health and water quality. Understanding the condition of the Utility's infrastructure assists with replacement and maintenance decisions and is referred to as "asset management". Effective operations and maintenance is critical to the wastewater system.

The Utility's infrastructure is aging. This challenge focuses on the Utility's aging pipes, manholes and lift stations. How to adequately fund the replacement of aging infrastructure is a key concern for the Utility. Implementing asset management tools will assist the Utility to make informed infrastructure maintenance and replacement decisions, thereby leading to lower life cycle costs. Information related to financing the Utility's operation and maintenance programs and capital projects can be found in **Chapter 11**.

Deteriorating Pipes and Manholes

Olympia's wastewater system includes about 187 miles of gravity sewer pipes and over 4,000 manholes. More than 30% (by total length) of Olympia's sewer pipes are more than 50 years old and made of either concrete or vitreous clay pipe. These types of pipe are most susceptible to structural issues such as cracking/breaking and corrosion, which leads to infiltration of groundwater and/or eventual pipe failure if not corrected.

Aging brick and concrete manholes are also susceptible to corrosion and structural failure unless repaired or replaced in a timely manner.

Given the extensive and aging wastewater system, understanding the operational and structural integrity of pipes and manholes is critical to environmental stewardship and public health as well as long-term financial planning. Effective operations and maintenance of these systems is essential. Understanding the systems through asset management techniques is necessary for improved cost effectiveness.

The gravity sewer pipe condition rating program, set up in 2006 to identify and characterize both structural and operational deficiencies of all gravity sewer pipes in the system, has reached the end of its first round of inspections. Under the program, pipes are inspected and assigned a numeric value corresponding to their condition and potential life expectancy. The pipes are being re-inspected on a schedule based on material and pipe condition. The older (higher probability of failure) and/or more critical (higher consequence of failure) a pipe is, the more frequent a video inspection will occur. The schedule varies from yearly to once every twenty-five years.

Structural and operational deficiencies identified are either corrected by City maintenance activities or capital facility projects, using trenchless technologies whenever feasible. Completion of the first round of pipe inspections in 2015 was an important accomplishment of the wastewater program.

This condition rating system supports the identification of pipes needing repairs or replacement. In doing so, the rating system will help determine financial and resource needs.

The manhole condition rating program, started in 2008, involves rating manholes based on condition of individual components such as the barrel, ladder, ring and cover. As of December 2018, 75% of manholes have been inspected.

Lift Stations

The Wastewater Utility owns 31 lift stations. Associated with these lift stations are 9.5 miles of force mains (pressurized pipes), ranging from 4–30 inches in diameter.

The Utility has a robust capital facility program to replace or upgrade older lift stations. Concerns regarding structural integrity and capacity of these older lift stations and force mains are similar to those described above. Failure of a lift station to operate as designed, or the absence of a generator during a prolonged power failure, may result in a sewer overflow. This risk is increased if multiple lift stations are affected by a widespread power outage.

Asset management goals and strategies of the Plan also address the condition of existing lift stations using criteria similar to the gravity sewer pipe condition rating program described above. Repairs and/or replacement of elements of these lift stations, including the installation of an onsite generator at those locations without one, are scheduled as part of the capital facilities program described in **Chapter 10**.

8.2 Onsite Sewage Systems (OSS)

Although progress has been made on the removal of OSS located within the city limits and the urban growth area in recent years, OSS in urban areas continue to threaten water quality and public health, particularly in northeast and southeast Olympia.

The presence of approximately 4,225 OSS in Olympia and its urban growth area (UGA) creates potential long-term risks to the environment through groundwater, surface water and soil contamination. In addition, there is the public health risk of direct contact between people and sewage (also known as wastewater) from failed OSS. OSS typically have a life expectancy of 20-30 years, but are often used longer. In an urban setting, OSS are best used as an interim form of wastewater treatment until municipal sewer service is available.

One environmental impact of OSS is the increasing discharge of nitrates to surface and ground waters. Nitrates, which are generated by OSS as waste decomposes, are increasingly observed in groundwater and surface water, including the City's drinking water supply wells in Southeast Olympia. In some cases, the concentration of nitrates threatens the viability of both private and public drinking water supplies. See **Chapter 4** for further discussion on the challenges associated with permitting and converting OSS to sewer service.

Converting OSS to sewer service helps reduce public health risks and maintain water quality in surface and ground water. However, the conversion of OSS to sewer service is costly, and therefore challenging, for both residents and the Utility. The cost of converting from an OSS to the public sewer system can range from $7,000 to over $50,000.

Existing and new programs to facilitate and fund conversions of OSS to sewer service are discussed in **Chapter 9**. These include the Septic to Sewer Program, a connection fee payment plan, capital projects to extend sewer infrastructure into already developed areas, and technical assistance. Coordination with Thurston County and LOTT on these and other OSS-related activities will continue under this Plan.

A related challenge is extending sewer infrastructure to serve new development in both the City and the UGA fast enough to prevent the installation of yet more OSS. While the City does not have an extension program in place for small developments or single-lot infill homes, utility staff intend to address this within the framework of the Objectives identified in **Chapter 9**.

8.3 Extending Sewer Infrastructure to New Development

Planned development in Olympia and its UGA requires planning for and financing sewer infrastructure extensions effectively and equitably.

Municipal sewer service is the preferred method of wastewater management in increasingly urban communities such as Olympia. Compared to OSS, the various methods of conveying wastewater to a regional treatment facility (e.g., gravity sewer pipes, lift stations, STEP systems, grinder pumps) reduce the potential for public and environmental health risks. However, wastewater goals and policies may conflict with other City goals (e.g. promoting infill development) as well as residents' financial interests.

Sewer service relies upon comprehensive and integrated pipe systems. Local topography often creates conditions that require regional lift stations or other pressurized methods of conveyance. Where lift stations are necessary, both construction and maintenance costs are high. To minimize the number of lift stations, infrastructure planning needs to foresee development patterns and require lift stations in optimum locations.

The development of a comprehensive, cost-effective wastewater system over time requires careful and consistent planning and implementation. Coordination between various City departments, developers, and individual property owners is essential. Providing comprehensive sewer service equitably and efficiently will remain a key utility priority and challenge.

In some cases, the City and/or the Utility may choose to take a more active role in financing the infrastructure needed to support new development. Two ways this can be accomplished is by extending sewer infrastructure associated with major roadway construction projects and establishing developer reimbursement agreements, also known as latecomer agreements. In addition, the City provides technical assistance and reviews projects during several phases of project development.

8.4 Climate Change

Changing climate in the Pacific Northwest likely will result in increased rainfall and rising seas. Increased rainfall and associated flooding could result in increased flows into downtown's combined storm/sewer system. Approximately five sewer pump stations could be impacted by rising seas. Early adaptation to higher sea levels may allow for continued reliability and lowest reasonable costs. Efforts made by the Wastewater Utility such as reducing its energy use and promoting water conservation activities could assist the community in its efforts to mitigate climate change.

The City currently experiences occasional flooding in the downtown area due to extreme high tides. Because of relatively low ground levels in some developed areas of the City, and multiple open stormwater outfalls discharging to Budd Inlet, flooding will become more of a problem as the mean sea level rises. As streets and parking lots flood, water can enter downtown's combined stormwater and wastewater pipe system. These flood flows could exceed the capacity of the pipes and Budd Inlet Treatment Plant, creating public and environmental health concerns as well as affecting local businesses and the operation of the Budd Inlet Treatment Plant. Additionally, if marine water were to overwhelm the treatment plant, it could kill the biological activity, potentially resulting in extended periods with little or no wastewater treatment.

Two lift stations, East Bay and Old Port 1, are currently located within the 100-year flood hazard areas. By the end of the century, three additional lift stations, Water Street, West Bay and East Bay Harbor, are predicted to be susceptible to flooding due to sea level rise. The Water Street and West Bay lift stations are the Utility's two largest lift stations. The Utility's Emergency Response Plan, Asset Management Program and Capital Facilities Plan need to account for these concerns in short and long term work efforts.

Other effects of climate change include changing weather patterns, including increasing precipitation intensities and durations. Increased precipitation intensities could overwhelm the capacities of some combined sewer pipes potentially leading to wastewater backing-up into the City's wastewater system and causing combined sewer overflows (flooding of streets, homes and businesses).

To protect the 450-acre downtown area from increasing sea levels, the City partnered with the Port of Olympia and LOTT to develop the Olympia Sea Level Rise Response Plan (SLR Plan). The SLR Plan provides comprehensive strategies for minimizing and preventing flooding to downtown Olympia, including the recommendation to incorporate sea level rise into other city planning documents. This Plan's climate change goal, objectives and strategies are consistent with recommendations contained in the SLR Plan. See **Chapter 9** for additional information.

In 2018 Olympia entered into an interlocal agreement with the cities of Lacey and Tumwater and Thurston County to develop a regional climate mitigation plan. Phase I of the work has already been completed and resulted in the approval of a new communitywide emissions reduction goal by all project partners: To reduce communitywide emissions 45% below 2015 levels by 2030 and 85% below 2015 levels by 2050.

Phase II of the mitigation planning process will focus on developing and analyzing the strategies necessary to ensure that each partner jurisdiction hits the shared emissions targets. The Thurston Climate Mitigation Plan is expected to be completed in June 2020.

This Plan also addresses the Utility's actions intended to help slow down and reverse climate change. Efforts made by the Utility such as reducing energy use and promoting water conservation activities could assist the community in its efforts to mitigate climate change. For example, utility staff plan to explore the possibility of re-routing wastewater flow from the South Capitol neighborhood directly to the Budd Inlet Treatment Plant, bypassing the Water Street lift station. This project would alleviate surcharging in pipes on Capitol Way during rain events, as well as decrease energy use and the risk of overflow at the Water Street lift station, supporting objectives in the Climate Change goal.

8.5 Equitable and Predictable Rates and Fees

Creating predictability for customers and developers is important and can be difficult in a complex environment. The Plan will address the balance between ongoing utility needs and keeping rates as low as possible.

An important element of utility planning is predicting utility expenditures and maintaining a stable rate structure, including equitable rate structures for both commercial and residential customers. Ensuring a fair and equitable distribution of utility costs across the customer base is a City priority. A healthy and stable utility with predictable long-term revenues and expenses supports economic growth and developer investments in the community.

This Plan includes a detailed financial analysis (see **Chapter 11**) that evaluates current and potential future expenditures. Based on this analysis, necessary utility rates and general facility charges (GFCs) as assessed at the time of construction and connection to the City's wastewater system are recommended.

8.6 STEP Systems

STEP challenge topics include: maintenance, including life cycle costs of major components; odor control and corrosion control.

Because STEP systems store solids in underground STEP tanks, wastewater from STEP tanks releases ammonia and hydrogen sulfide, which have an unpleasant "rotten egg" smell when exposed to the air in downstream gravity pipes. Additionally, when a STEP force main discharges into a manhole or gravity sewer pipe, turbulent flows aerate the effluent, converting the hydrogen sulfide into sulfuric acid. The acid is highly corrosive to the concrete and metal in downstream pipes and manholes. For example, within 20 years of initial STEP system installation, the downstream concrete gravity pipe in Lilly Road deteriorated to the point where it had to be replaced. Other pipes such as the one shown below on Boulevard Road have been lined. The corrosion in this pipe was bad enough to allow the gaskets at each joint to fall down.

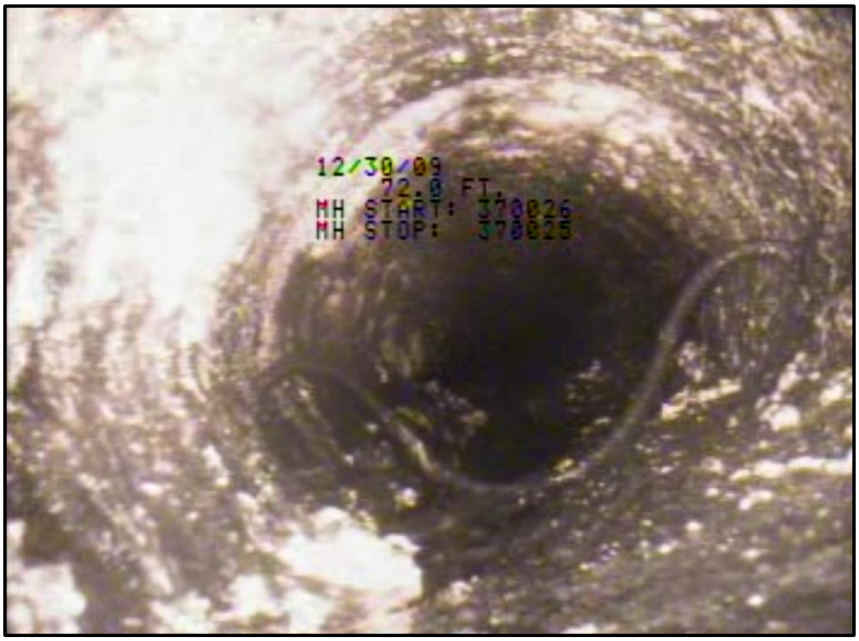


Figure 8.1 Example of a lined gravity sewer pipe

While past capital projects have installed protective coatings in some discharge manholes and downstream concrete pipes to address the corrosion problem, localized odor problems from hydrogen sulfide continue. As long as there are STEP systems in service, odor and corrosion challenges will occur.

Non-mechanical aerators and/or chemical filters may be necessary to neutralize odor as the wastewater is discharged into the gravity sewer pipes. In the southeast basin of Olympia, costly odor control equipment has been installed to address both odor and corrosion due to STEP effluent discharges into gravity sewer pipes. Odor complaints have also been received where STEP effluent is discharged to the gravity sewer system on Lilly Road and 14th Avenue NW. Odor in these locations have been managed by sealing the gravity sewer manholes in the vicinity.

STEP systems costs more per connection for maintenance than the typical gravity sewer connection. However, other service cost disparities also exist, such as between a sewer connection located downtown and a remote connection for which wastewater is pumped through two or event three lift stations. To further understand the actual costs of providing service to STEP system customers, the Utility intends to update the 2005 STEP system business case evaluation.

8.7 Inflow and Infiltration

Inflow and Infiltration (I&I) from groundwater and stormwater can unnecessarily consume pipe and treatment plant capacity. To keep pipe capacities from being exceeded, priority areas for addressing I&I should be identified.

In areas with high groundwater, particularly in the wet season, groundwater (infiltration) and stormwater (inflow) can enter sewer pipes through joints, cracks and direct connections. Older pipes made of vitreous clay and concrete (mainly installed prior to 1960) are especially susceptible to infiltration. I&I can be substantial, effectively reducing the capacity of the pipes to convey wastewater. Sewer overflows and back-up can result. LOTT's Budd Inlet Treatment Plant capacity is also adversely impacted.

There are a variety of I&I sources, as illustrated in Figure 8.1:

- Designed inflow from storm drains into combined sewer pipes, which carry both wastewater and stormwater.
- Planned (or illegally connected) inflow from storm drains (e.g., in a parking lot), roof or foundation drains, and other sources connected to a sewer pipe. In Olympia's older neighborhoods many residential roof downspouts and/or basement sump pumps are piped directly into the wastewater system. These connections are not permitted under current regulations.
- Infiltration of groundwater into leaky sewer pipes and manholes when the groundwater level is above the pipe or structure.

LOTT conducts a flow monitoring program initiated in 2003. In accordance with LOTT's point source National Pollutant Discharge Elimination System (NPDES) Permit WA0037061, an I&I evaluation for all sub-basins within the LOTT system is performed each year. The purpose of the program is to ensure permit compliance, characterize flows within the collection system, identify areas of concern for I&I, and aid in the prioritization of rehabilitation projects to reduce I&I. The program is also intended to fulfill requirements of the Intergovernmental Contract for Inflow and Infiltration Management and New Capacity Planning, presented in Exhibit J to the LOTT Interlocal Cooperation Act Agreement for Wastewater Management (the agreement. The agreement required that the City of Olympia remove approximately 2.7 million gallons per day (MGD) of 10-year peak day I&I. Between 1996 and 2007, the City completed ten I&I reduction projects resulting in a reduction of more than 8.1 MGD of 10-year peak day I&I, fulfilling the City's obligation. The Utility continues its efforts to identify and reduce I&I within the wastewater system.

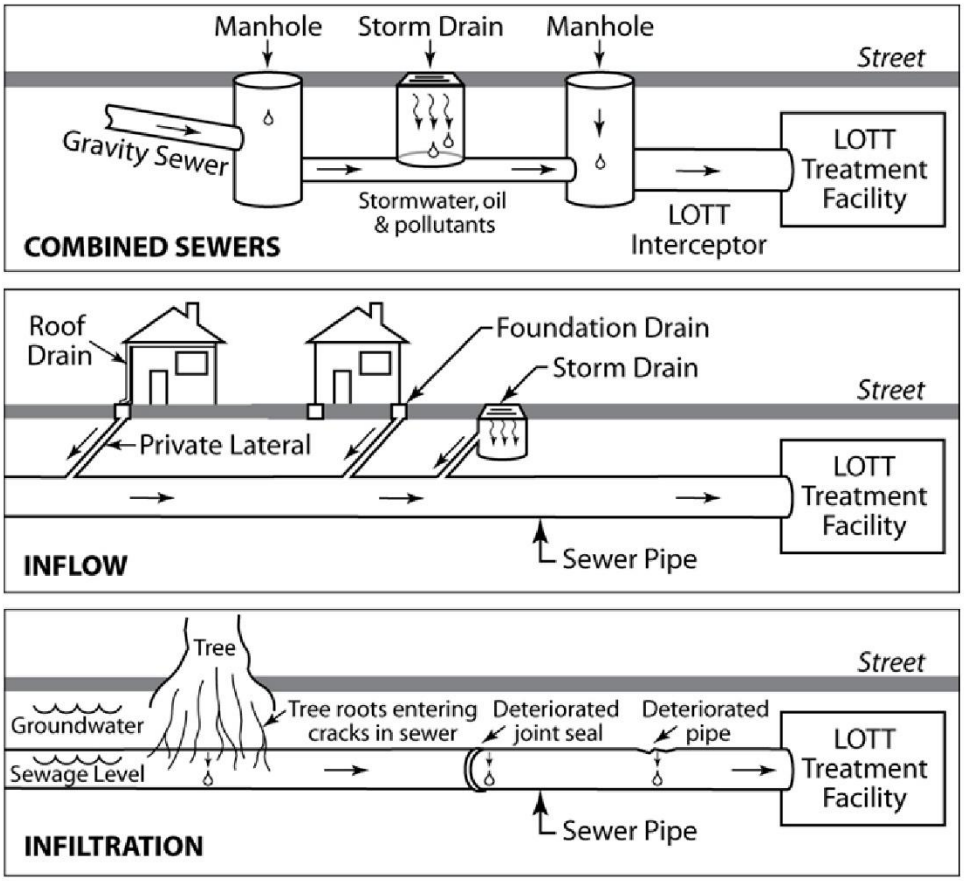


Figure 8.2 Sources of Inflow and Infiltration

There are four main areas of Olympia that are susceptible to I&I:

- The westerly slopes of West Bay,
- The central business district, Capitol Campus and South Capitol Neighborhood,
- The plateau south of San Francisco Avenue and west of Puget Street in northeast Olympia, and
- The Ken Lake area.

Although there have been several projects to separate I&I from the wastewater system in these areas, I&I is still an ongoing challenge to Budd Inlet Treatment Plant capacity. In 2008, LOTT began offering a special funding program to encourage and support I&I removal projects conducted or sponsored by the partner jurisdictions. If a project is demonstrated to be "cost-effective" in removing flows to LOTT wastewater treatment facilities, it is eligible for funding consideration. I&I reduction projects are difficult for the following reasons:

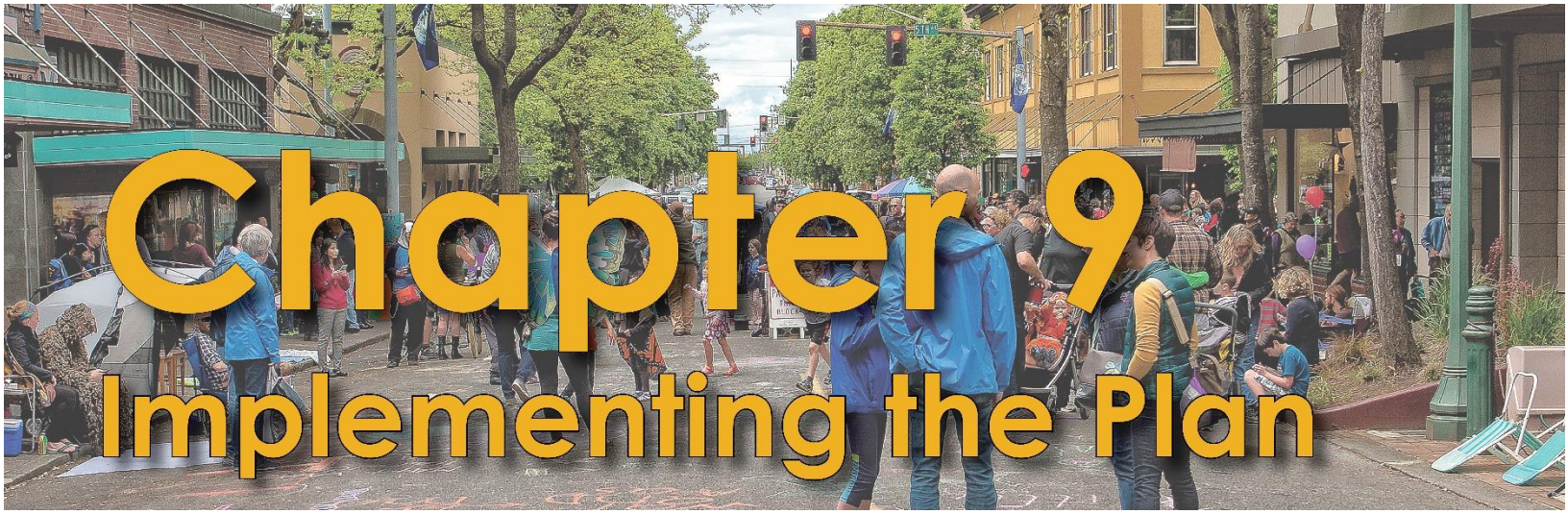
- Cost of separating inflow from the wastewater system,
- Difficulty of separating inflow from sewer pipes on private property,
- Need to procure a new, permitted outfall for stormwater release, and
- Need to provide adequate treatment for separated stormwater flows.

So far, the emphasis has been on replacing leaky sewer pipes along the west slopes of West Bay, the west portion of the central business district, and the area immediately west of Ken Lake. Using the condition rating program, smaller sections of sewer pipe with I&I issues in many locations throughout the Sewer Service Area have been replaced or repaired.

8.8 Fats, Oils and Grease (FOG)

Significant utility staff time is spent on tasks associated with FOG, including educating customers on proper disposal methods, responding to wastewater system blockages and coordinating with LOTT. The Wastewater Utility's current FOG cleaning program is focused on grease cleaning. To ensure it continues to be addressed, current staffing, anticipated staffing needs and potential opportunities to partner with the Storm and Surface Water Utility should be analyzed and identified.

Managing the public health risks of wastewater is a long-standing responsibility of the Utility. Often sewer overflows affect both public health and environmental quality. Sewer overflows have a variety of causes, including the buildups of FOG. The Utility has a proactive approach to prevent overflows caused by FOG. Operations and maintenance staff routinely clean pipes known to have problems with FOG. Staff closely monitor wet wells and pipe cleaning for the presence of FOG. When FOG is determined to be an issue, operations staff use CCTV equipment to identify the source, if possible. If the source is determined to be residential, staff educate residents and homeowners about the effects of dumping FOG into the sewer by sending postcards or letters. If the source is determined to be commercial establishment, most often a restaurant, utility staff coordinate closely with LOTT staff to eliminate improper disposal of FOG into the sewer system.



Chapter 9
Implementing the Plan

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CHAPTER 9 – GOALS, OBJECTIVES AND STRATEGIES

The Plan is organized around seven goals, with one to three objectives identified for each. The goals respond to the question, "What do we hope to achieve in the long term?" Objectives answer "What will we do to achieve these goals within a shorter time frame?" Strategies answer the question "How will we go about accomplishing our objectives?"

These objectives and strategies do not encompass the entire range of wastewater responsibilities and day-to-day work. Rather, they focus on the challenges that are in the forefront of Wastewater Utility (the Utility) and community needs.

This chapter emphasizes the specific strategies, elaborating on how the Utility is currently implementing them, or how staff intend to implement them within the six-year context of this Plan. Many of the Plan's associated financial and capital components have a 20-year perspective.

The Goals are:

1. **Water Quality** – Clean Water Act and Safe Drinking Water Act standards for nitrogen, fecal coliform and other constituents of concern in groundwater and surface water are met.
2. **Public Health** – No one is exposed to sewer overflows or excessive odors.
3. **Climate Change** – The Utility implements all applicable City and region-wide climate change mitigation and adaptation measures.
4. **Utility Rates and Fees** – utility rates and fees are equitable and affordable, minimizing rate increases while maintaining consistent levels of service.
5. **Integrated Water Resources** – Water resource utilities are planning together for long-term environmental, economic and social changes.
6. **Information** – Customers and community are informed about and involved in wastewater management activities.

Goals and objectives are summarized in Table 9.1, showing how they respond to the challenges described in **Chapter 8**, and to the Comprehensive Plan vision summarized in Goal GU2:

> *Reliable utility service is provided at the lowest reasonable cost, consistent with the City's aims of environmental stewardship, social equity, economic development and the protection of public health.*

At the end of the chapter, Table 9.2 summarizes the 42 strategies of this Plan. For each strategy, the table indicates relative priority and whether or not the Utility is currently implementing it.

Table 9.1 Relationships between the Comprehensive Plan and Wastewater Plan			
Wastewater Challenge	**Comprehensive Plan Goals**	**Wastewater Goal**	**Wastewater Objective**
Aging Infrastructure	GU 3: Utilities are developed and managed efficiently and effectively	4: Utility rates and fees	4C: Use asset management systems
Onsite Sewage Systems	GU 4: Use water efficiently to protect the natural environment GN 5: Ground and surface waters are protected from land uses that impact water quality	1: Water quality	1A: Encourage onsite sewage conversions
Extending Sewer Infrastructure to New Development	GU 1: Utility and land use plans are coordinated	1: Water quality	1B: Facilitate orderly expansion of the system
Climate Change	GN 8: Community sources of emissions are identified, monitored and reduced	3: Climate Change 6: Information	3A: Reduce the Utility's greenhouse gas emissions 3B: Adapt infrastructure to address sea level rise 3C: Adapt infrastructure to accommodate precipitation trends 6A: Keep customers informed
Equitable and Predictable Rates and Fees	GU 2: Service is provided at lowest costs consistent with environmental stewardship, social equity, economic development and public health protection	4: Utility rates and fees 6: Information	4A: Coordinate financial management so that rate increases are distributed overtime 4B: Manage rates so that growth pays for growth 4C: Use asset management systems 6A: Keep customers informed
STEP Systems	GN 5: Ground and surface waters are protected from land uses that impact water quality	1: Water quality 2: Public health 4: Utility rates and fees	1B: Facilitate orderly expansion of the system 2B: Manage odors 4C: Use asset management systems
Inflow and Infiltration	GU 8: Wastewater infrastructure is designed to minimize leakage, overflows and inflow and infiltration	1: Water quality 2: Public health 3: Climate Change	1C: Eliminate illicit discharges of wastewater 2A: Reduce the volume of sewer overflows 3A: Reduce the Utility's greenhouse gas emissions
FOG	GU 8: Wastewater infrastructure is designed to minimize leakage, overflows and inflow and infiltration	2: Public Health	2A: Reduce the volume of sewer overflows

9.1 Water Quality

Goal: Clean Water Act and Safe Drinking Water Act standards for nitrogen, fecal coliform and other constituents of concern in groundwater and surface water are met.

Protecting and improving local waters is a core responsibility of the Wastewater Utility. This responsibility necessitates the management of existing as well as future wastewater systems. Problematic discharges of wastewater-related contaminants often occur over many years. These include discharges from illicit or unintended connections and septic systems, also known as onsite sewage systems (OSS). Meanwhile, future sewer extensions need to accommodate both new development and OSS conversions. The following objectives and strategies are aimed at reducing wastewater-related contaminants in receiving waters while encouraging urban development and re-development.

1A. Objective – Encourage OSS conversions through the Septic to Sewer Program.

The Olympia City Council approved revisions to the municipal code establishing the Septic to Sewer program, effective August 17, 2009. The voluntary program provided technical assistance and financial incentives for connection of OSS to sanitary sewer as well as cost recovery mechanisms for the City.

Under the program, the City waived the sewer general facility charge (GFC) if a property owner using OSS makes a connection to the wastewater system within two years of being notified of the availability of sewer. The Utility saw an increase in conversions as a result of the program, but the rate of conversions tapered off as the GFC waivers expired.

In March 2017, the LOTT Clean Water Alliance (LOTT) initiated a program whereby, depending on income, 50 to 75 percent of LOTT's capacity development charge (CDC) is rebated when a property converts to sewer service. In October 2017, the Utility extended the GFC waiver for two years after a property is purchased and for all properties qualifying for a LOTT CDC rebate. In addition, the City reduced the amount of reimbursement required from property owners for sewer extension projects. The intention was to make it more affordable for property owners to convert from a septic system to a sewer connection. As a result of the new LOTT program and the changes in the City's Septic to Sewer program, the Utility expects to see a sustained increase in OSS conversions.

1A1. Strategy – Complete sewer extension projects that allow for individual OSS conversions.

This strategy facilitates sewer infrastructure extensions into areas where OSS are prevalent. The Utility has funding available to construct a limited number of neighborhood sewer extension projects. Neighborhood sewer extension projects are selected based on established criteria. Costs for extending sewer to individual parcels and converting to public sewer can be high. Under this strategy, the Utility will provide limited funding to help cover the cost of the sewer extensions. Based on the 2013 Wastewater Management Plan, the neighborhood sewer extension program was revised to provide more financial assistance to property owners. This strategy is ongoing and the Utility expects to continue with one or two extension projects per year.

1A2. Strategy - Provide technical assistance and public education for individual and neighborhood OSS conversions to municipal sewer.

Converting OSS to sewer service is technically and financially challenging. The Utility has been providing one-on-one consultations with individual property owners and distributing information on OSS conversion through various media since 2009.

1B. Objective – Facilitate the orderly expansion of the wastewater system.

Under most circumstances, a traditional gravity sewer system with a lift station and force main (pressurized pipe) if topography warrants it, will continue to be the required method of sewer collection in areas to be developed, regardless of the source of funding or type of development.

However, utility staff acknowledge that alternatives, such as pressurized grinder pump systems, are viable and appropriate for certain limited locations with unique constraints. There is, for example, an existing policy (see Appendix M) allowing for grinder pump systems in limited areas.

1B1. Strategy – Give priority to extensions of gravity sewer systems over other sewer types (e.g. STEP, grinder).

With this strategy, staff will refine the regulations for when pressurized sewer systems will be allowed (i.e. grinder pumps and potentially other technologies as they become technically available). Minimizing the number of pumps in the sewer system will also support Objective 2A (Reduce the volume of sewer overflows annually) by reducing the potential of sewer overflows associated with power outages and mechanical failures. Reducing the volume of wastewater pumped will reduce energy consumption and also support Objective 3A (Reduce the Wastewater Utility's greenhouse gas emissions).

1B2. Strategy – Allow the limited use of STEP systems for OSS conversions and infill development in neighborhoods currently served by STEP systems.

This strategy continues existing policies that prohibit the use of STEP systems for new subdivision and commercial development, while accepting that STEP may be the appropriate technology for OSS conversion and infill lot development within areas that are currently served by STEP systems.

Under State regulations, existing and potential future STEPs are the operational responsibility of the Wastewater Utility rather than the property owner. Implementation of this strategy must, therefore, continue to be highly restrictive of STEP use.

1B3. Strategy – Explore options for public participation in new regional lift stations.

Regional lift stations are typically constructed by large development projects. This strategy will give consideration to the Utility's participation in construction of new lift stations in basins (e.g. South Bay and Chambers) where development densities are not favorable to development-driven sewer infrastructure. Cost recovery mechanisms to collect development's pro-rata share would be considered.

1C. Objective - Eliminate illicit discharges of wastewater into stormwater conveyance pipes and receiving waters.

Nutrient and bacteria loading from cross connections of sewer pipes with stormwater pipes is a point source that can be identified and eliminated. The associated reductions in wastewater-related contaminants can be measured in terms of the volume of wastewater removed from Budd Inlet and its tributaries. For example, based on industry research, residences generate approximately 21 pounds of wastewater-related nitrogen per year.

1C1. Strategy – In partnership with the City's Storm and Surface Water Utility, provide timely investigation and response to illicit discharges.

In this strategy, staff will use water quality sampling of stormwater outfalls in concert with land use and infrastructure analysis to efficiently and thoroughly locate cross connections between sewer and stormwater pipes. Further field investigations that incorporate dye testing, smoke testing, and televising of pipes will identify specific problems. Utility mapping improvement is ongoing and assists with illicit discharge identification, for example, by identifying areas where wastewater and stormwater pipes are in close proximity to each other. Operations and Maintenance staff provide key services in accomplishing this work.

The City's Wastewater and Storm and Surface Water Utilities have been coordinating this work since 2011, in order to meet requirements established by their respective NPDES permits.

9.2 Public Health

Goal: No one is exposed to sewer overflows or excessive odors.

Managing the public health risks of wastewater (also known as sewage) is a long-standing responsibility of the Wastewater Utility. Often sewer overflows and odors affect both public health and environmental quality.

2A. Objective – Reduce the volume of sewer overflows annually.

Sewer overflows have a variety of causes such as buildups of fats, oils and grease (FOG), pipe blockages due to root intrusion and excessive inflow of stormwater. Much of the Utility's focus is on preventing sewer overflows.

2A1. Strategy – Reduce the number of sewer pipe blockages through continued preventive maintenance activities such as pipe and manhole cleaning, root control and minor repairs.

Regular and focused maintenance helps prevent sewer overflows by ensuring adequate capacity in the wastewater system. Related work is a key responsibility of the Utility. Certain pipes have been identified as higher risk for blockages due to the presence of roots and grease. Those pipes are monitored more closely than other pipes.

Increasing use of condition rating and asset management techniques will support refinements to this strategy over the next six years. Efforts to increase the capacity of asset management to help manage wastewater systems will be pursued.

In recent years, the Utility's in-house maintenance ability has increased to meet current needs. Wastewater operations and engineering staff discuss preventive maintenance issues bi-weekly. We document needs and track them until the issue is resolved. The Utility implements emerging technologies as appropriate.

As the wastewater system grows, so will the need to adequately support operations and maintenance work.

2A2. Strategy – Continue to provide adequate resources for improved mapping and documentation of the wastewater system.

Efforts to improve staff knowledge of the wastewater system need to be maintained in the long-term. Efficiencies and effectiveness increase as staff understanding of the complex pipe and pump systems improve. Additional resources may be needed in the long term to maintain this work effort.

2A3. Strategy – Implement education and enforcement efforts to reduce preventable blockages due to fats, oils and grease (FOG) build-up, with assistance from LOTT.

This strategy emphasizes the need for continued coordination between City wastewater and LOTT staff regarding the enforcement of pre-treatment regulations (OMC 13.20) and educational efforts associated with FOG. Additional resources may be needed to accomplish this strategy.

2A4. Strategy – Reduce infiltration and inflow in prioritized areas so that pipe capacities are not exceeded.

Sewer pipe capacities in Olympia are generally adequate regardless of infiltration and inflow. While infiltration and inflow (I&I) do not currently generate sewer overflows in the wastewater system, they do have an impact on the capacity of LOTT's wastewater treatment facilities. Therefore, staff will continue ongoing efforts to manage and reduce these unnecessary flows to avoid future capacity problems. For example, needed repairs to leaking pipes and manhole structures also reduce groundwater infiltration.

Long-term refinements to I&I management will be developed as needed, in partnership with LOTT. Tools for reducing I&I include targeted construction projects (pipe repairs and lining) and the separation of stormwater and wastewater flows from buildings. The 20-year capital facilities plan includes several projects that will reduce I&I.

2A5. Strategy – During sewer spills and other emergencies, utilize available regional resources through the LOTT Mutual Aid Agreement.

Access to LOTT partners' readily available resources is important during emergencies. The existing LOTT agreement can be implemented as needed. Agreements and relationships will be updated and maintained.

2A6. Strategy - Improve operations and maintenance capacity by continuing to incorporate new field technologies.

Technologies to increase the effectiveness of field operations and maintenance continue to emerge. Important recent examples of new technologies include the use of trenchless pipe lining technology to substantially reduce the costs of pipe retrofits and the use of mobile device applications to collect inspection data and document needed map revisions. As these technologies emerge, the Utility will help foster their development and use.

2A7. Strategy – Use succession planning and new staff on-board training as tools to ensure adequate staff resources.

Staff turnover continues to be a challenge to the Utility. Methods for documenting institutional knowledge are being implemented. In addition, more experienced staff are directly training newer staff when possible.

2B. Objective – Manage odors from sewer systems.

Odors caused by sewer gases are inherent to a sewer system. Odors problems are particularly associated with lift station and STEP system effluents. Although sewer gas odors are unpleasant, they are rarely harmful to people. The Utility strives to minimize odor problems to maintain citizens' quality of life.

2B1. Strategy – Investigate odor complaints promptly and resolve as appropriate.

Staff respond to odor complaints, quantify the extent of the problem, and implement projects to retrofit pipe and pump systems with odor control technologies through the capital facility planning process. Often, these mitigations efforts are incrementally iterative, culminating in an acceptable level of odor control. Odor management can be a critical neighborhood concern.

9.3 Climate Change

Goal: The Utility implements all applicable City and region-wide climate change mitigation and adaptation measures.

City-wide policies mandate measures to adapt to and mitigate climate change. The Utility supports these policies.

3A. Objective – Reduce the Wastewater Utility's greenhouse gas emissions.

The Utility's main sources of greenhouse gas emissions are vehicle fuel consumption and electricity to drive pumps for lift stations and STEP systems.

3A1. Strategy – Complete an energy audit for all lift stations.

Lift stations are the primary consumers of electrical energy in the wastewater system. With guidance from available industry and/or Washington state energy self-assessment programs, staff will evaluate wastewater system energy use. Other potential efficiencies (e.g., vehicles, buildings) are currently addressed by City-wide policies and practices.

3A2. Strategy – Develop a sewer force main cleaning program.

This strategy employs the use of modern "pigging" technology for thoroughly cleaning the interior of high priority pipes. Use of the technology reduces friction and increases pipe flow capacity, reducing pump run hours and energy use. Maintenance staff will implement this strategy beginning with a demonstration project planned for the year 2020.

3A3. Strategy - Research opportunities to sell back stored energy to the grid.

To ensure proper operation and maintenance, the Utility exercises each of its backup generators weekly. This strategy will look at the feasibility of selling that power back to the energy grid.

3A4. Strategy: Meet City-wide greenhouse gas emission reduction goals including those related to fleet and building operations.

The City has established and continues to refine goals for reducing the emission of greenhouse gases. The Utility commits to doing its share to reduce the City's greenhouse gas emissions.

3A5. Continue participation in Puget Sound Energy's Green Direct Program.

The City has committed to purchasing 100 percent of its power from the Green Direct Program sourced from dedicated, local, renewable energy resources. Participation in this program will directly off-set the City's carbon emissions (from City operations).

3A6. Strategy – Continue implementing a green infrastructure project evaluation process (e.g. Envision) for wastewater capital projects.

Tools are available to identify project-specific sustainability issues, challenges, and opportunities (e.g. ISI's Envision program). This tool encourages collaboration among staff across disciplines, lines of business and departments and helps to refine and define elements.

This strategy will ensure that the scope of projects identified in the Wastewater Utility's Capital Facilities Plan is sustainably defined on a consistent basis. This process was implemented for several projects following the previous plan. This practice will be fully implemented within the next six years.

3A7. Strategy: Prioritize Inflow and Infiltration projects in lift station basins with high peak flows.

This strategy will evaluate lift station pumping data to identify basins with significant inflow and infiltration. Those basins will be inspected to find and reduce the sources of inflow and infiltration. Reduced pumping will result in reduced energy used by lift stations.

3B. Objective – Adapt wastewater infrastructure to accommodate predicted sea level rise projections.

With this strategy, staff will build upon ongoing work by the Storm and Surface Water Utility and LOTT, by incorporating sea level rise into wastewater infrastructure planning for the downtown area and other parts of the Sewer Service Area adjacent to Budd Inlet and the Deschutes River.

The *Olympia Sea Level Rise Response Plan* predicted that by 2100, sea levels will most likely rise 36 inches (50% chance) and could rise 68 inches (1% chance). Vulnerable portions of the Utility's sewer system will need to be adapted to accommodate sea level rise. See **Chapter 2** for additional information about the *Olympia Sea Level Rise Response Plan*.

3B1. Strategy - Perform a thorough evaluation of the wastewater infrastructure vulnerability to sea level rise.

Utility staff will quantify the threats of sea rise to the wastewater system through vulnerability assessments and site specific investigations. A clearer understand of long-range infrastructure needs may result in specific capital projects.

3B2 Strategy: Elevate, floodproof or relocate low-lying lift stations.

The Utility owns and maintains five sewer lift stations (Water Street, West Bay, East Bay, Old Port I and East Bay Marina) that will be vulnerable to flooding with sea level rise. Low-lying manholes and sewer mains will also be vulnerable. In coming years, vulnerable infrastructure will need to elevated, floodproofed or relocated to adapt to sea level rise.

3B3. Strategy: Monitor tidally influenced zones to determine whether hydraulic pressures are increasing Inflow and Infiltration.

In collaboration with LOTT, this strategy will monitor system flows and wastewater salinity levels to identify basins with increasing inflow and infiltration. Those basins will be inspected to find and reduce the sources of inflow and infiltration.

3B4. Strategy: Consider revisions to Engineering Design and Development Standards that take into account infrastructure's estimated effective life and sea level rise projections

This strategy will revise the Engineering Design and Development standards, if needed, to require infrastructure to be elevated or floodproofed to accommodate sea level rise throughout its estimated effective life. This strategy will also require new or redeveloped low-lying structures be equipped with backwater valves for protection from sewer surcharges.

3B5. Strategy - Collaborate with the LOTT Clean Water Alliance on winter preparedness and emergency response efforts. Expand efforts to include protection of the combined sewer.

With sea level rise, protecting the combined sewer system from flooding will become increasingly important. The combined sewer system conveys wastewater from homes and businesses as well as stormwater from downtown streets to the Budd Inlet Treatment Plant. During flood events, floodwaters can overtop the shoreline and travel overland to flood catch basins that collect stormwater and carry it into the combined sewer system. This additional volume of water mixes with wastewater and is conveyed to the treatment plant. The surcharge of combined floodwater and wastewater could overwhelm the treatment plant and result in additional treatment costs or increased likelihood of bypasses, in which untreated or partially treated wastewater is discharged directly to Budd Inlet through LOTT's marine outfalls.

Additionally, if the treatment plant is overwhelmed by incoming flows, wastewater could back-up into the City's wastewater system and potentially flood streets, homes, and businesses. High concentrations of marine water (with high salinity content) in flood waters could also disrupt the biological treatment processes, which would require months to recover.

3C Objective: Adapt wastewater infrastructure to accommodate forecast precipitation trends.

The combined sewer system is vulnerable to increasing precipitation intensities and durations. Increased precipitation intensities could overwhelm the capacities of some combined sewer pipes potentially leading to wastewater backing-up into the City's wastewater system and causing combined sewer overflows (flooding of streets, homes, and businesses).

Researchers evaluate future precipitation trends using General Circulation Models (GCM) that capture relevant ocean, terrestrial, and atmosphere processes and their response to increased atmospheric greenhouse gas concentrations. GCM modeling in the Pacific Northwest indicates that the Olympia region may experience a 10 to 20% increase in annual precipitation by the end of the century. GCM results for the Puget Sound region indicate that Olympia and the Deschutes River watershed may experience a 15 to 20% increase in extreme 24-hr precipitation by mid-century and a 25 to 33% increase by end-of-century under a high greenhouse gas emissions scenario. Results also indicate that lower intensity events (such as the present day 20-year event) may occur more frequently.

The Utility will need to understand the implications of future increases in precipitation by modeling the combined sewer system capacities.

3C1. Strategy: Track climate science to understand precipitation trends and the implications for future urban and watershed-based flooding.

The University of Washington Climate Impacts Group studies the effect of climate change on precipitation in Thurston County. The increase in extreme rainfall events described above (3C Objective), could result in increases of stormwater into the combined sewer system. This strategy proposes to track the work of the University of Washington Climate Impacts Group in order to make informed decisions.

3C2 Strategy: Consider revisions to Engineering Design and Development Standards and the Drainage Design and Erosion Control Manual that take into account regional climate model precipitation projections throughout infrastructure estimated effective life.

Current design standards are based on historical precipitation data. As precipitation intensities increase, the capacities of infrastructure designed based on historical data will be overwhelmed. This strategy proposes to use precipitation model forecasts to establish new infrastructure design criteria.

3C3 Strategy: Collaborate with the LOTT Clean Water Alliance to separate combined wastewater/stormwater pipes in conjunction with stormwater and road improvements or residential repairs, when economically feasible.

Older areas of the City, especially downtown, combine storm and wastewater flows in one pipe system that flows to the treatment plant. Potential separation projects are identified and evaluated during redevelopment and street retrofit projects. In general, separation projects are pursued based on ease of implementation and costs. While separation is not a utility priority, coordination with LOTT's long-term capacity planning may result in future capital projects that have mutual benefits. The urgency of separating the combined sewer will increase with increased precipitation.

The City will continue to work with LOTT to identify important project and associated funding options.

9.4 Utility Rates and Fees

Goal: Utility rates and fees are equitable and affordable, minimizing rate increases while maintaining consistent levels of service.

A utility can best provide consistent levels of service by managing revenue and expenditures to minimize changes in rates and fees in the short term, and predict them accurately in the long term. While this goal and the following objectives work towards achieving this balance, other strategies particularly under Water Quality and Water Use Goals, will significantly impact how the Wastewater Utility determines and collects rates and fees.

4A Objective – Coordinate the financial management of the three water-based utilities so that utility rate increases are distributed over time.

Most of the Utility's customers pay for multiple utility services, rather than only sewer service. Each utility's rate increase, therefore, also affects the customers of the other utilities.

4A1. Strategy – Conduct regular financial studies, coordinated with other water resource utilities and potentially including LOTT.

The Utility evaluates rates and other financial needs during the annual rate analysis and in updating the Wastewater Management Plan. These evaluations consider management needs, levels of service, and growth assumptions. Balancing rate increases among the City's water resource utilities is an ongoing emphasis.

4B Objective - Manage utility rates and connection fees consistent with the City's guiding principle of growth paying for growth.

Policy PU2.1 of the City's Comprehensive Plan states that new development projects pay for their own utility infrastructure. This policy is sometimes summarized as "growth paying for growth". The policy ensures that existing rate payers are not paying for new infrastructure and connections.

4B1. Strategy – Update utility rates and general facility charges (GFCs) to reflect costs of providing needed services, while looking for opportunities to improve the equitable distribution of charges.

The Utility will evaluate whether the current definition of equivalent residential unit (ERU) is equitable, especially as it relates to commercial vs. residential customers and smaller housing types as addressed by the City's Missing Middle initiative.

4B2. Strategy – Understand the actual costs of providing service to STEP system customers.

The Utility recognizes that STEP systems cost more per connection for maintenance than the typical gravity sewer connection. However, other service cost disparities exist, such as between a sewer connection downtown and a remote connection for which the wastewater is pumped through two or even three lift stations. This strategy will review and update the 2005 STEP system business case evaluation.

4C. Objective – Use computer-based asset management systems in order to minimize infrastructure life-cycle costs while maintaining a consistent level of service.

By 2020, the Utility plans to implement Cityworks software to manage its work orders and assets. Implementing asset management tools is necessary to provide the best value level of service for the costs involved throughout the infrastructure's entire life cycle. Operation and maintenance of assets in a constrained budget environment requires a prioritization scheme to ensure the correct maintenance or replacement work is done at the correct time.

4C1. Strategy - Continue pipeline condition rating consistent with the Pipeline Assessment Certification Program (PACP) to track the physical integrity of the wastewater pipe system.

After thirteen years of implementation, the first comprehensive round of prioritized pipe inspections is complete and the re-inspection program is well underway. In future years, condition rating will continue for pipes according to their current condition and criticality, supporting the identification of pipes needing repairs or replacement. In doing so, the rating system will help determine financial and resource needs for the Utility.

4C2. Strategy - Inspect manholes consistent with the Manhole Assessment Certification Program (MACP) for condition rating.

With the first round of prioritized PACP inspections completed, the Utility will plan for wastewater manholes inspections using the MACP standards. In general, the wastewater system incorporates a manhole, or ground-level access structure, into every 300-400 feet of pipe. These structures are five to 20 feet deep with multiple pipes entering and exiting. Deterioration of these structures results in leaks, both out of and into, the wastewater system. Modest repairs can often appreciably extend the life of manholes. Resources needed to complete this work will be evaluated.

4C3. Strategy - Based on pipe and manhole condition rating outcomes, complete priority repairs and replacements of pipes and structures.

Wastewater system repairs are currently incorporated into operation and maintenance work plans as well as capital facility projects. At this time, available resources are adequate. However, project needs will evolve over time. Refer to **Chapter 10** for additional information regarding capital facility project planning.

4C4. Strategy – Inspect and condition rate lift stations and STEP systems on a regular basis.

Lift stations, STEP systems and force mains present a high level of risk and vulnerability. Malfunctions in complex pumped systems can result in appreciable sewer overflows. Emergency responses can be extensive and may last more than a few hours. Staff emphasize the need to proactively track the life cycle of these systems and complete needed retrofits prior to system failures. The Utility has made substantial progress in updating lift stations and force main in the past six years. Refer to **Chapter 10** for additional information.

4C5. Strategy – Based on lift station and STEP system condition ratings outcomes, complete priority repairs and replacements of pumping infrastructure.

Upgrades of lift stations and repairs of STEP systems are currently incorporated into operation and maintenance work plans as well as capital facility projects. Refer to **Chapter 10** for additional information.

9.5 Integrated Water Resources

Goal: Water resource utilities are planning together for long-term environmental, economic and social changes.

Water resource needs and issues are increasingly managed collaboratively among various City entities. A proactive management approach will not only minimize the adverse impacts of changes over time, but guide us toward achieving this community's sustainability goals.

5A. Objective – Integrate Water Resource activities that share common goals, resources and/or assets.

The water resource utilities share a number of common interests such as environmental preservation and water conservation, as well as similar methods for communicating with the public. This creates a natural opportunity for collaboration.

5A1. Strategy – Coordinate public education activities with the Drinking Water and Storm and Surface Water Utilities.

The Drinking Water Utility supports extensive public education efforts focused on water conservation and reuse. Beginning in 2014, staff have been coordinating public messages regarding the linkage between water conservation and wastewater generation. Over the next six years, staff will increase utility coordination with the Storm and Surface Water Utility, especially in the area of pollution prevention.

5A2. Strategy – Allow and promote greywater subsurface irrigation alternatives in concert with Thurston County.

Consistent with building codes and public health expectations, staff will advocate for the voluntary use of greywater systems. The Thurston County Health Department is the local regulatory authority for establishing greywater standards. Staff will address this strategy sometime during the six-year planning period, anticipating initial action by Thurston County.

9.6 Information

Goal: Customers and the community are informed about and involved in wastewater management activities.

Instant availability of information in society today has changed customer expectations. The Utility is responding to increased expectations using appropriate technologies.

6A. Objective – Keep customers and the community informed and involved.

When community members are informed and involved, the Utility is more likely to gain the support they need to address the goals of this plan. Community involvement helps the utility focus on the most pressing initiatives.

6A1. Strategy – Update and expand the Utility's website and other media to disseminate information consistent with the objectives of this Plan.

With the exponential increase in use of electronic media, customer and community expectations are high concerning access to digital information associated with the Utility.

Efforts include increasing the amount and type of information available through the City's website, and actively approaching the Utility's customer base to determine their concerns.

6A2. Strategy – Coordinate customer and community education efforts with the other water resource utilities, LOTT and Thurston County Environmental Health.

Currently, there are a variety of methods that the four water resource utilities and LOTT use to provide information and educate their customers. Under this strategy staff will look at what these other utilities are doing to approach their customers, aside from information available on their respective websites, and identify partnership opportunities that promote a deeper understanding of the relationship between water resources and local communities.

6A3. Strategy – Provide adequate resources for public education and involvement.

Wastewater technical and regulatory issues are complex. Maintaining capacity to be helpful and responsive is a key service to the community. Resolving various concerns from the development community and both commercial and residential customers requires detailed knowledge about the wastewater infrastructure.

Decisions about gravity sewer and STEP system availability and potential extensions, OSS permitting, and problem troubleshooting are financially important to those affected by wastewater policies. Code enforcement, environmental monitoring and public education on specific issues are also important. Communicating this information often requires detailed and site specific interactions with customers.

9.7 Summary Table of Strategies

On the following page, Table 9.2 summarizes the 42 strategies, showing for each one its relative priority, whether or not the Utility is currently implementing the strategy, if not when is it going to be implemented, whether the strategy has an existing program associated with it, and whether capital project(s) are associated with it.

Table 9.2 Status of Strategies					
No.	**Strategy**	**Relative Priority (H,M,L)**	**Existing or New Program (E,N or Both)**	**When**	**Capital Project**
Water Quality					
1A1	Complete sewer extension projects	High	Existing	Ongoing	Yes
1A2	Provide OSS technical service	High	Existing	Ongoing	No
1B1	Prioritize gravity sewer systems	High	Existing	Ongoing	No
1B2	Limit use of STEP systems	Medium	Existing	Ongoing	No
1B3	Explore participation in new lift stations and force mains	Low	New	2022	Yes
1C1	Provide timely illicit discharge response	High	Existing	Ongoing	No
Public Health					
2A1	Continue preventive infrastructure maintenance	High	Existing	Ongoing	Yes
2A2	Provide resources for mapping and documentation	Medium	Existing	Ongoing	No
2A3	Implement FOG education and enforcement activities	Medium	Existing	Ongoing	No
2A4	Reduce I&I in prioritized areas	Low	Existing	Ongoing	Yes
2A5	Use LOTT mutual aid agreement	Low	Existing	Ongoing	No
2A6	Incorporate new field technologies	Medium	Existing	Ongoing	No
2A7	Use succession planning and new employee training	Medium	New	2020	No
2B1	Investigate odor complaints promptly	Medium	Existing	Ongoing	No
Climate Change					
3A1	Complete lift stations' energy audit	Low	New	2022	Yes
3A2	Develop force main cleaning program	Medium	New	2022	Yes
3A3	Research selling stored energy	Low	New	2021	No
3A4	Meet city greenhouse gas reduction goals	High	Existing	Ongoing	No
3A5	Continue participation in Green Power Program	High	Existing	Ongoing	No
3A6	Implement green infrastructure evaluation process	Medium	Existing	Ongoing	No
3A7	Prioritize I&I projects in basins with high peak flows	Low	New	Ongoing	Yes
3B1	Evaluate infrastructure vulnerability to sea level rise	High	New	2020	No
3B2	Adapt low-lying lift stations	High	New	Ongoing	Yes
3B3	Monitor zones to determine impacts from hydraulic pressures	Medium	New	2022	No

No.	Strategy	Relative Priority (H,M,L)	Existing or New Program (E,N or Both)	When	Capital Project
Climate Change, continued					
3B4	Consider revisions to EDDS to address sea level rise projections	Medium	New	2020	No
3B5	Collaborate with LOTT during emergencies	High	Existing	Ongoing	No
3C1	Track climate science	High	New	2019	No
3C2	Consider revisions to EDDS and DDSCM to address precipitation projections	Medium	New	2020	No
3C3	Collaborate with LOTT to separate combined system when economically feasible	Medium	Existing	Ongoing	Yes
Utility Rates and Fees					
4A1	Conduct financial studies	High	Existing	Ongoing	No
4B1	Update rates and fees	High	Existing	Ongoing	No
4B2	Understand STEP service costs	Medium	New	2021	No
4C1	Continue pipeline condition rating program	High	Existing	Ongoing	No
4C2	Inspect manholes	Medium	Existing	Ongoing	No
4C3	Complete pipe and manhole repairs	High	Existing	Ongoing	Yes
4C4	Condition rate lift stations and STEP systems regularly	High	Existing	Ongoing	No
4C5	Complete pumping system repairs	High	Existing	Ongoing	Yes
Integrated Water Resources					
5A1	Coordinate public education activities	Medium	Existing	Ongoing	No
5A2	Allow greywater irrigation in concert with Thurston County	Low	Existing	Ongoing	No
Information					
6A1	Update the Utility's website	Medium	Existing	Ongoing	No
6A2	Coordinate education efforts with others	Medium	Existing	Ongoing	No
6A3	Provide resources for public education	Medium	Existing	Ongoing	No

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CHAPTER 10 – CAPITAL FACILITIES PLAN

Capital Facilities PlanBoth operations and maintenance and capital facility planning are fundamental to the infrastructure-dependent Wastewater Utility. The lift stations, pipes, manholes and STEP systems that make up the wastewater infrastructure vary in age, materials and structural integrity. At some point in its life, infrastructure is best replaced or upgraded through the capital facilities planning process.

Ongoing work to systematically televise and evaluate the condition of the individual pipes helps prioritize repair and replacement needs. As needed, pipes can be repaired or replaced by City crews, or for more involved work, by contractors. Contractor work is typically funded through the City's Capital Facilities Plan (CFP). Pipe capacity upgrades, lift stations rehabilitations, and sewer extensions to facilitate conversion of septic systems, also known as onsite sewage systems (OSS) to public sewer are also included in the CFP. These work efforts will continue in the years to come.

The projects contained in the CFP are funded annually through Utility rates and General Facilities Charges (GFCs). The Utility pursues bonds and Washington State-managed low interest loan and grant programs when needed and available. Chapter 11 details a financial strategy involving a combination of cash and debt financing of capital projects.

This chapter discusses programs and systems that characterize the condition of existing infrastructure, identify infrastructure deficiencies and prioritize capital projects for both a six and a 20-year planning horizon. The prioritized projects for both six and 20 years are summarized at the end of this chapter in the basic format of the CFP.

10.1 Physical Condition of the Gravity Sewer System

Assessing the condition of existing infrastructure is a necessary component of effective asset management and capital planning. The vast majority of the wastewater system consists of gravity sewer pipes and manholes. Sewer pipes are televised using remote tractor-mounted cameras that travel through pipes and send video images to above-ground personnel. The video files are stored and evaluated at a later date.

The condition of gravity sewer pipes is assessed using the Pipeline Assessment and Certification Program (PACP) developed by the National Association of Sewer Service Companies (NASSCO), an accepted industry standard. Utility staff store and manage sewer pipeline video files and descriptive data using GraniteNet software from Cues, Inc.

The condition of gravity sewer pipes is assessed on an ongoing basis, using the following criteria:

- Pipeline integrity (physical structure, slope and alignment).
- Inflow and infiltration (inflow of stormwater from catch basins and roof drains, and infiltration of groundwater through pipe and manhole leaks).
- Operating efficiency (extent to which the system operates as designed with minimal input of energy or operation and maintenance).
- Potential for illicit cross connections (discharges to stormwater pipes and surface waters)
- Risk and vulnerability (effect of potential failure on public or environmental health).

The Utility began ongoing condition assessment work in July 2005. In 2006, staff estimated it would take six years to complete an initial detailed assessment of the 185 miles of gravity sewer pipes. The Utility has completed the initial assessment of the gravity sewer pipes and are implementing a re-inspection program for the highest risk pipes and those in the worst condition.

In partnership with the LOTT Clean Water Alliance (LOTT), computerized flow monitors are installed in key pipes in order to track flows over time. The data provides information on wastewater, also known as sewage,

flows as well as inflow and infiltration and operating efficiency. Lift stations are monitored continuously through the Utility's supervisory control and data acquisition (SCADA) system.

The general characteristics of the sewer pipes are summarized as follows.

Pipeline Integrity

Due to the full implementation of PACP-based video pipe inspections since 2005, the structural integrity of the sewer pipe network is now well-understood. Approximately 30 percent of the gravity sewer pipes were installed prior to 1970 and are near or past their 50-year design life. The likelihood of leaks due to settlement, deterioration, sediment accumulation and root intrusion may increase over time in these pipes. About 3% of the gravity sewer pipes have been lined, extending their design life.

The concrete and asbestos cement pipes that were widely used during this period are susceptible to corrosion and deterioration from hydrogen sulfide gas, such as that produced by STEP systems. Several acute corrosion problems related to STEP systems have been identified over the years and addressed with manhole and concrete pipe liner projects. Several additional projects to address corrosion are needed and are included in this Plan.

The pipe condition assessment indicates the following:

- 81% of the pipes are in good condition
- 13% are in fair condition
- 5% are in poor condition
- 1% remain to be inspected. Many of these pipes are relatively new and are assumed to be in good condition.

These data suggest that the gravity sewer system is in manageably good condition. The pipe re-inspection program indicates that pipes are deteriorating at a slow rate. Significant changes in pipes with repeat inspections have not been observed over the last twelve years. Repairs can be completed proactively in order to avoid costly and/or extensive emergency repairs. Often times, repairs are needed to only a small section of the pipe. Repairs to problematic pipes are completed by in-house or contractor crews. With planning, cost-effective trenchless repair technology is the preferred choice for repairs. With this technology, an epoxy impregnated sock is pulled through the faulty pipe, expanded to meet the sides of the pipe and cured in-place. The pipe is repaired at a fraction of the cost of pipe excavation and subsequent street reconstruction.

The pipe televising and condition rating program indicates that needed pipe replacements and repairs can be addressed proactively and at manageable costs.

Pipe inspections and condition rating are a key work element of the Utility. Operations and maintenance crews in concert with engineering staff provide dedicated resources for pipe cleaning and inspection.

Inflow and Infiltration

Inflow and infiltration (I&I) mainly occurs in combined storm/sanitary pipes in the downtown, South Capitol neighborhood and portions of northeast and west Olympia and in older faulty pipes. Inflow is precipitation that enters sewer pipe mainly from catch basins within the roadway and roof downspouts. Infiltration results from groundwater entering sewer pipes through cracks, bad joints, or leaky manholes. These inputs of storm and groundwater can result in significant excess flows and surcharging of the pipes during the wet season. On rare occasions, surcharges during large storms can extend above the manhole rim with wastewater discharging to the street.

The Utility reduced I&I in the 1990s through several extensive pipe replacement projects in West Olympia. The work was undertaken as part of an agreement with LOTT that addressed wet season flow reduction.

Currently, flow monitoring at most of the lift stations tracks seasonal variations in pipe flows. LOTT's Budd Inlet Treatment Plant can typically handle the high flows generated during wet weather events. In the future,

wet weather flows due to infiltration may decrease as pipes and manholes are rehabilitated through the condition rating program. Additionally, combined pipes responsible for inflow are separated as feasible and cost effective. The Utility is adequately managing I&I.

Operating Efficiency

Older areas of the City with smaller diameter pipe, separated joints and other challenges can require more frequent maintenance, particularly pipe cleaning and root control. These areas are identified through periodic review of the work order system and the scheduled maintenance program. In recent years, high frequency maintenance has consumed approximately 5% of operation and maintenance resources on an annual basis.

On a case-by-case basis, the cost of increased maintenance needs is compared to the cost of rehabilitation or reconstruction of aging or inadequate infrastructure. For example, one well-known high maintenance area—the South Capitol neighborhood—is being adequately served by careful flow evaluation, extra maintenance, and isolated, small-scale rehabilitation projects. This highly managed approach to capacity limitations is cost effective, given the high costs of extensive rehabilitation / reconstruction. Other localized areas of high maintenance in Olympia are best served, however, by reconstruction. Depending upon the scale of the work effort, construction projects are completed in-house or by contractors through capital facilities funding.

Accumulation of fats, oils, and grease (FOG) in sewer pipes, primarily from food service establishments, is also a maintenance problem. Accumulation of grease can clog pipes, reduce operating capacity and result in sewer overflows. Proper restaurant procedures for managing FOG onsite can prevent this problem. LOTT and the City provide educational materials to restaurant owners and issue citations for grease containment violations. A rigorous program to enforce grease abatement, including the enforcement of existing pretreatment regulations in OMC 13.20, is well underway.

Illicit Cross Connections

The Wastewater Utility partners with the City Storm and Surface Water Utility to actively inspect their pipe systems for unintentional cross-connections. Improperly constructed pipes and manholes can result in ongoing discharges of wastewater to the stormwater system. The wastewater and stormwater systems have been evaluated for design features that are correlated with cross-connections such as pipes in close proximity to each other, unclear construction blueprints, and sewer pipes passing through stormwater pipes. Potential problem areas have been field investigated. In recent years, inspections have revealed one or two of these cross connections per year, especially in older areas of the City.

Other areas that may be susceptible to unintentional cross-connection during future construction have been flagged on utility maps. These work efforts and the coordination between Wastewater and Storm and Surface Water Utilities will continue.

Risk

Structural failures in wastewater pipes can result in sewer overflows impacting public and environmental health. Evaluation of the sewer pipe network has focused on improving older pipes susceptible to problems. Additionally, ensuring the non-stop operation of lift stations is a program priority (see below).

Given the current knowledge of pipe and lift station condition, the risk of infrastructure failure is modest. High risk infrastructure is well-managed. Systems in close proximity to surface waters are prioritized. However, the extensive scale of the wastewater system suggests that failures will occur. Utility staff plan for emergency response to failures thereby minimizing impacts.

Summary of Sewer Pipe Condition

Overall, the sewer pipe network is well-understood and in manageable condition. Future work can focus on proactive maintenance and timely repairs. Results suggest the need for ongoing scheduled repairs, but not catastrophic failure or unanticipated expenditures. Operation and maintenance resources may need to be augmented as the City grows and the infrastructure continues to age.

10.2 Capacity Analysis of the Gravity Sewer System

City staff, with the help of consulting engineers, analyzed the capacity of wastewater infrastructure, principally pipes and pumps. Capacity limitations in the gravity sewer system may develop for several reasons:

- New development "upstream" may increase demand on existing "downstream" pipes and pumps,
- Pipes may have been designed, usually many years ago, smaller than they should have been, or
- Pipes may receive excess flows due to I&I.

A computer model was constructed to simulate sewer flows throughout the city. The sewer model includes approximately 60 miles of pipe, 1,372 maintenance holes and 24 pump stations. The model was designed to simulate a 10-year peak hour storm event and estimates wastewater flows based on the current and projected population, land use and I&I entering the system.

Flow calculations and the associated computer simulations were calibrated based on actual data collected at the LOTT Budd Inlet Treatment Plant and over 30 flow monitoring locations spread throughout the LOTT service area. See Appendix L for a description of the model and methodology used.

The model identified areas of the system currently over capacity or projected to be over capacity by the year 2050, projected buildout for the City. In general, future conditions mirror those currently observed, except that several of the large LOTT interceptors begin to experience capacity limitations. These include the Indian Creek Interceptor, the State Street Interceptor, and the Martin Way Interceptor. LOTT has plans to address these limitations in its capital program.

Capacity Limitations

The model helps us understand potential capacity limitations that might occur within this Plan's 20-year planning horizon. Population growth is based on projections from the Thurston Regional Planning Council. In general, sewer capacity limitations are driven by existing I&I. Future population growth tends to contribute far less peak flow to the system than is generated through I&I, particularly in portions of the conveyance system with combined sewers.

Figure 10.1 shows locations predicted to have some risk of flooding.

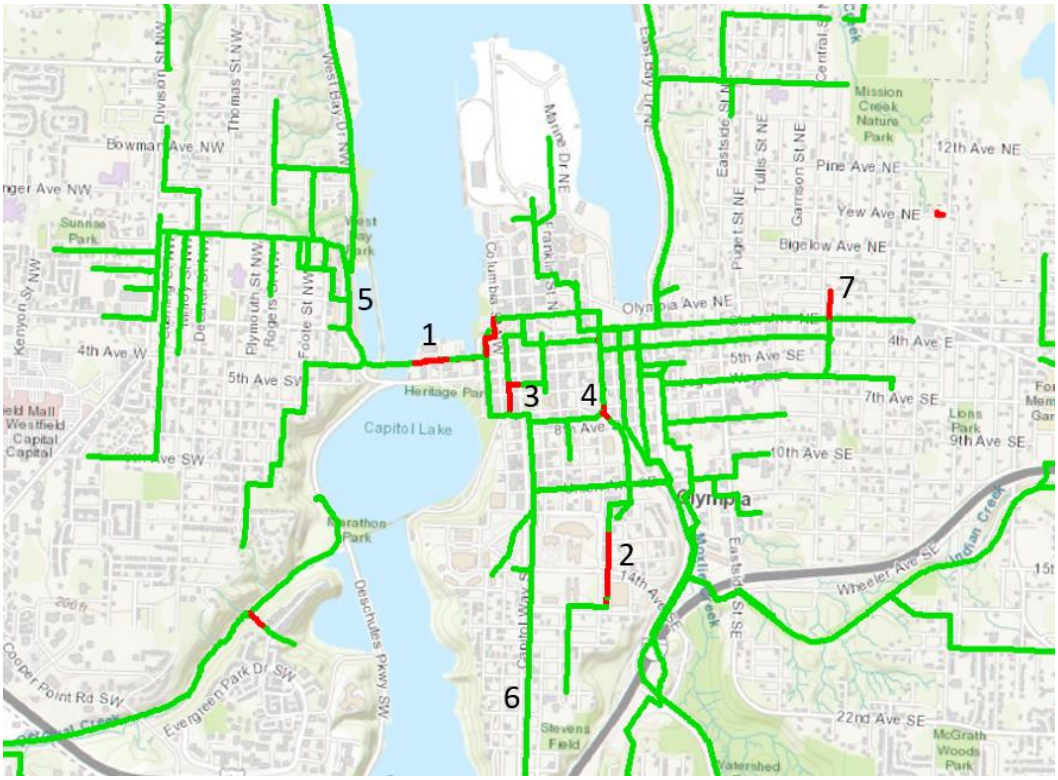


Figure 10.1. Areas with risk of flooding under peak hour conditions for a 10-year storm.

Seven areas with anticipated risk of flooding are shown on Figure 10.1 These locations are prioritized into four tiers, based upon risk of flooding and confidence in the projections.

Tier 1. High risk of flooding and high confidence in projections (plan for action within 10 years):

1. The 4th Avenue bridge**.** Flow from the west side of Olympia is conveyed across the bridge via an 18" diameter sewer. On the east side of the bridge, flow splits between the 18" main line and a 15" overflow line. Both the 18" and 15" pipelines are projected to backup and flood under the modeled conditions due to limited capacity in these pipes and high I&I.
2. Jefferson Street SE (Phase 1). This pipeline conveys flow generated between Stevens Field and Union Avenue, including a large amount of combined storm flow. This pipeline has limited capacity to convey high flows because it is only 10-inches in diameter. Several bottlenecks were identified, along the 1100 to 1500 blocks of Jefferson Street, the 500 block of 11th Avenue and the 1000 block of Cherry Street, that result in predicted backups and risk of maintenance hole flooding.

Tier 2. Moderate risk of flooding, less confidence in data (monitoring with near-term remediation):

3. Columbia Street. A large amount of combined storm flow enters the sewer in this part of downtown Olympia. The Columbia Street sewer, a 12-inch diameter pipe with relatively flat slope, can cause a bottleneck at peak flows. Much of this pipeline is buried deep; however, the upstream portion is relatively shallow, with only 2-3 feet of cover, posing a risk of flooding.
4. Jefferson Street SE (Phase 2). Flow generated between Capitol Way and the railroad, north of Union Avenue, is conveyed north along Jefferson Street. Much of the pipeline in the 600 and 700 blocks of Jefferson is 12-inch diameter and relatively flat. The high storm flows generated in the combined sewer system in this area lead to a risk of flooding along the railroad near 7th Avenue.

Tier 3. Risk of basement flooding, high confidence in data (long-range monitoring):

5. West Bay Drive. A series of pipelines converge along West Bay Drive, conveying flow to the 4th Avenue Bridge. A relatively flat section of pipe acts as a bottleneck, causing backups as far north as Jackson Avenue. The pipe is deep enough that the risk of maintenance hole flooding is low, but some risk of lateral and basement flooding is predicted in this area.
6. South Capitol. A large amount of storm-related combined flow is generated in this basin and conveyed north along Capitol Way through a 10-inch diameter pipe. The pipe slope is relatively flat south of 19th Avenue, limiting capacity and creating a bottleneck. The pipe is deep enough that the risk of maintenance hole flooding is low, but some risk of lateral and basement flooding is predicted in this area.

Tier 4. Moderate risk of flooding, low confidence in data (long-range monitoring):

7. Central Avenue. The model projects a risk of flooding in this pipeline. However, actual flows at this location are unknown because the contributing basin has not been actively monitored. Future flow monitoring of this basin will determine whether model projections are accurate.

Tier 1 issues will be addressed in the near-term through capacity upgrade projects. Tier 2 issues will require further monitoring, but the Utility will budget for near-term remediation. Tier 3 and 4 issues will require long-range monitoring and be revisited in the next plan update.

10.3 Condition Assessment of Lift Stations and Force Mains

Table 3.2 in Chapter 3 shows the age, type, and upgrade/replacement project date (if applicable) of the 31 City owned lift stations. Typical problems include aging electrical, mechanical, and performance monitoring systems.

This Plan presents the Utility's current vision of capital projects planned for a 20-year horizon. In 2018, the Utility hired a consultant to perform survey-level condition assessments of 16 priority lift stations with input from operations staff in order to develop planning level cost estimates for needed lift station upgrade projects and associated force main replacements, as applicable.

The stations identified as priorities in the next six years include:

- Old Port 1 (and force main)
- Miller and Central (and force main)
- Miller and Ann
- Rossmoor (and force main)
- Old Port 2 (and force main)
- Roosevelt and Yew (and force main)

Upgrades to the identified lift stations consistent with the schedule provided in Table 10.2 are expected to minimize risks for acute or chronic failure.

Of the 9.5 miles of force mains, 20 percent are constructed with older materials – concrete or asbestos cement (AC). The remaining 80 percent are constructed with more durable PVC or HDPE pipe. The Utility plans to replace concrete and AC force mains in conjunction with lift station upgrade projects as appropriate. Untimely failure of these force mains is not anticipated.

10.4 Capacity Analysis of Lift Stations and Force Mains

The Utility has evaluated the capacity of its lift stations against current and anticipated future demands. No current capacity deficiencies have been identified. Design of lift station upgrades will account for anticipated future demands based on the latest development projections.

The land use build out projections and associated lift station demands assume that the City and its Urban Growth Area (UGA) are allowed to develop to a maximum reasonable population density of eight ERUs per acre.

10.5 Condition Assessment of the STEP Systems

All STEP systems in Olympia have been installed in the past 30 years and have a life expectancy of at least 40 years. Since all STEP system pipes are made with PVC materials, problems with pipeline integrity are unlikely in the near future. Infiltration is also unlikely, since STEP systems are tightly sealed and pressurized, and installed using modern construction techniques.

STEP tanks, however, which are typically constructed of concrete, may over time develop structural issues related to corrosion. Hydrogen sulfide gas produced by STEP effluent is corrosive to concrete. While no active evaluation of the condition of existing tanks has been completed, there have been no documented structural failures of STEP tanks.

Similarly, STEP system pumps have been shown to last 20 or more years, with at most replacement of moving parts during regularly scheduled O&M service. However, given the large number of STEP systems installed in the last 20 years, it is anticipated that the Utility will be replacing STEP pumps at an increased frequency during the 20 year planning horizon. This investment is reflected in the capital facilities planning presented in this Plan. In general, STEP systems are currently performing adequately.

Commercial STEP systems requiring considerable City maintenance will continue to be a priority for conversion to gravity sewer service. These conversion projects will be prioritized as they become feasible.

10.6 Major Sewer Extensions

Major extensions of sewer infrastructure will be needed to serve outlying areas of Olympia and its UGA. These projects are typically prompted by new development and therefore anticipated to be completed with private funding. As discussed under Strategy 1B3 in Chapter 9, the City is exploring options to encourage construction of regional sewer infrastructure in areas where development densities may not favor development-driven infrastructure projects, such as the South Bay Road and the Chambers extensions. Sewer extensions associated with transportation improvements may occur within the 20-year planning period of this Plan; these projects are authorized and managed by the Utility through the capital facility program. A figure showing locations of anticipated sewer extensions and associated lift stations is located in Appendix J.

10.7 Summary

Based on the Condition and Capacity Assessments completed for the various types of wastewater infrastructure, needed projects are identified for funding in the next 20 years. The projects are summarized in Tables 10.1 - 10.5 below utilizing the funding categories currently used in the Capital Facility Plan (CFP).

The list of projects is tentative. It will be evaluated and refined during annual capital facility planning processes. However, it provides a projection of likely projects and their potential funding requirements. Many of the projects are proactive in nature. A discussion of funding of these projects, including whether a project is entirely or partially funded by rates and/or General Facility Charges, is included in Chapter 11.

Table 10.1 Repair and Replacement Projects				
No.	**Project Name**	**Description**	**Cost ($K)**	**Timing**
1	Prioritized Repairs	Major repairs using trenchless technologies	$593	Annual
2	Spot Repairs	Minor open-cut repair work	$134	Annual
3	Manhole Repair and Replacement	Repairs of structural deficiencies and leaks	$134	Every 3 years
4	Side Sewer Repairs	Repairs of City-owned laterals in right of way	$30	Annual
5	STEP Rehabilitation Equipment	Replacement of STEP system equipment	$233	Annual

Table 10.2 Lift Station Improvements				
No.	**Project Name**	**Description**	**Cost ($K)**	**Timing**
6	Old Port 1 LS Construction	Upgrade station and install new force main	$1,145	2020
7	Miller and Central LS Construction	Upgrade station and install new force main	$940	2020
8	Miller and Ann LS Design	Design upgrades to lift station	$110	2020
9	Miller and Ann LS Construction	Upgrade station	$455	2021
10	Rossmoor LS Design	Design station upgrades and new force main	$228	2021
11	Rossmoor LS Construction	Upgrade station and install new force main	$948	2022
12	Old Port 2 LS Design	Design station upgrades and new force main	$354	2023
13	Old Port 2 LS Construction	Upgrade station and install new force main	$1,475	2024
14	Roosevelt and Yew LS Design	Design station upgrades and new force main	$292	2025

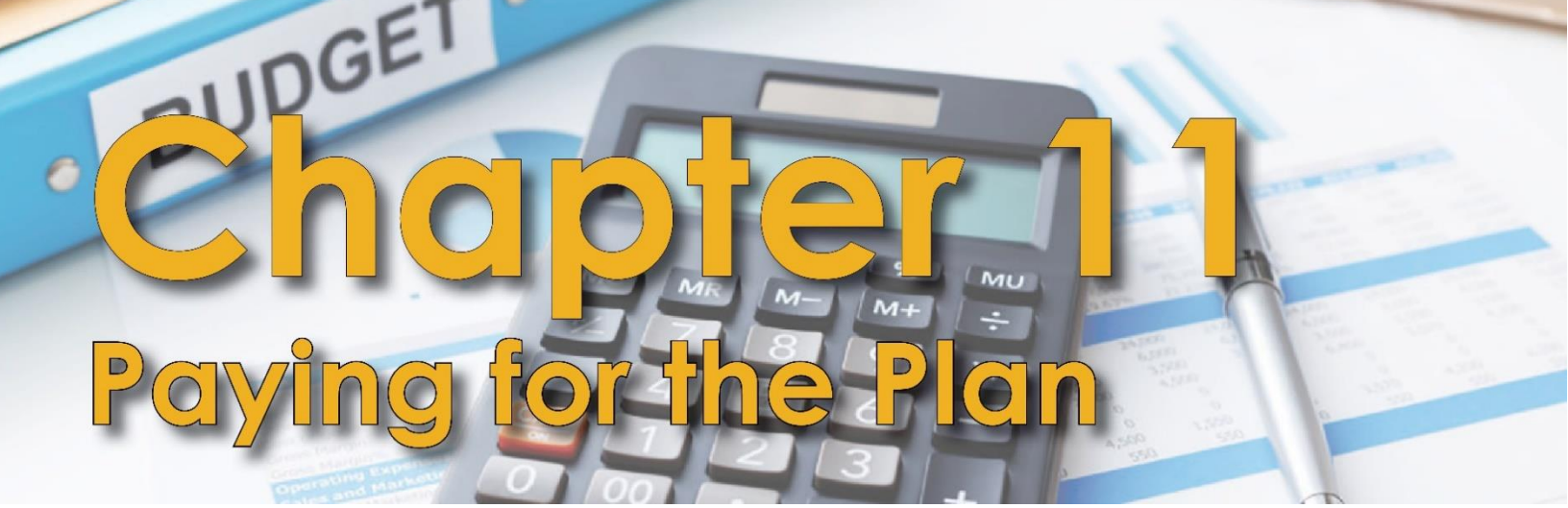
Table 10.3 Sewer Extension Projects				
No.	**Project Name**	**Description**	**Cost ($K)**	**Timing**
15	Neighborhood Sewer Extensions	Extension of public sewer into neighborhoods	$426	Annual

Table 10.4 Summary Table of Wastewater Projects for 2020 - 2029

	Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
9021	**9021 - Asphalt Overlay Adjustments**										
	Asphalt Overlay Adjustments			14,000			14,000			14,000	
9703	**9703 - Replacements and Repairs**										
	Prioritized Repairs	593,000	593,000	593,000	593,000	593,000	593,000	593,000	593,000	593,000	593,000
	Spot Repairs	134,000	134,000	134,000	134,000	134,000	134,000	134,000	134,000	134,000	134,000
	Manhole Repair and Replacement		134,000			134,000			134,000		
	Side Sewer Repairs	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
	STEP Rehabilitation	233,000	233,000	233,000	233,000	233,000	233,000	233,000	233,000	233,000	233,000
	Asphalt for Sewer Repairs	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000
9806	**9806 - Lift Stations**										
	Old Port 1 Lift Station Construction	1,607,000									
	Miller and Central Lift Station Upgrade Construction	940,000									
	Miller and Ann Lift Station Upgrade Design	110,000									
	Miller and Ann Lift Station Upgrade Construction		455,000								
	Rossmor Lift Station Upgrade Design		228,000								
	Rossmor Lift Station Upgrade Construction			948,000							
	Old Port II Lift Station Upgrade Design				354,000						
	Old Port II Lift Station Upgrade Construction					1,475,000					
	Roosevelt & Yew Lift Station Upgrade Design						292,000				
	Roosevelt & Yew Lift Station Upgrade Construction							1,214,000			
	Jasper and Eastside Lift Station Upgrade Design								230,000		
	Jasper and Eastside Lift Station Upgrade Construction									956,000	
	Woodfield Estates Lift Station Upgrade Design										115,000
9809	**9809 - Pipe Extensions**										
	Gravity Sewer Extensions						575,000				
	AC Force Main Upgrades, Phase 1						1,035,000				
	AC Force Main Upgrades, Phase 2										1,035,000
9810	**Pipe Capacity Upgrades**										
	4th Avenue Sewer		1,550,000								
	Jefferson Street Sewer (Phase 1)				2,230,000						
	Jefferson Street Sewer (Phase 2)								280,000		
	Columbia Street Sewer								480,000		
9808	**9808 - Sewer System Planning**										
	Sewer System Televising and Condition Rating Program	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000
	Sewer Force Main Condition Assessment Program	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000
	Asset Management Implementation & Maintenance	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000
9813	**9813 - Onsite Sewage System Conversions**										
	Neighborhood Sewer Extensions	426,000	426,000	426,000	426,000	426,000	426,000	426,000	426,000	426,000	426,000
9903	**9903 - Infrastructure Pre-Design and Planning**										
	Pre-Design and Planning	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
	ANNUAL TOTAL	**$ 4,448,000**	**$ 4,158,000**	**$ 2,753,000**	**$ 4,375,000**	**$ 3,400,000**	**$ 3,707,000**	**$ 3,005,000**	**$ 2,915,000**	**$ 2,761,000**	**$ 2,941,000**

Table 10.5 Summary Table of Wastewater Projects for 2030 - 2039

	Description	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
9021	**9021 - Asphalt Overlay Adjustments**										
	Asphalt Overlay Adjustments		14,000			14,000			14,000		
9703	**9703 - Replacements and Repairs**										
	Prioritized Repairs	593,000	593,000	593,000	593,000	593,000	593,000	593,000	593,000	593,000	593,000
	Spot Repairs	134,000	134,000	134,000	134,000	134,000	134,000	134,000	134,000	134,000	134,000
	Manhole Repair and Replacement	134,000			134,000			134,000			
	Side Sewer Repairs	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
	STEP Rehabilitation	233,000	233,000	233,000	233,000	233,000	233,000	233,000	233,000	233,000	233,000
	Asphalt for Sewer Repairs	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000
9806	**9806 - Lift Stations**										
	Woodfield Estates Lift Station Upgrade Construction	476,000									
	East Bay Marina Lift Station Upgrade Design		153,000								
	East Bay Marina Lift Station Upgrade Construction			637,000							
	Holiday Hills Lift Station Upgrade Design				326,000						
	Holiday Hills Lift Station Upgrade Construction					1,359,000					
	Kempton Downs Lift Station Design						67,000				
	Kempton Downs Lift Station Construction							247,000			
	Colonial Estates Lift Station Design								115,000		
	Colonial Estates Lift Station Construction									424,000	
	Division & Farwell Lift Station Design										106,000
	Water Street Lift Station Replacement Design		1,058,000								
	Water Street Lift Station Replacement Construction			4,232,000							
9809	**9809 - Pipe Extensions**										
	Gravity Sewer Extensions	575,000					575,000				
	AC Force Main Upgrades, Phase 3					1,035,000					
9808	**9808 - Sewer System Planning**										
	Sewer System Televising and Condition Rating Program	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000
	Sewer Force Main Condition Assessment Program	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000
	Asset Management Implementation & Maintenance	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000
9813	**9813 - Onsite Sewage System Conversions**										
	Neighborhood Sewer Extensions	426,000	426,000	426,000	426,000	426,000	426,000	426,000	426,000	426,000	426,000
9903	**9903 - Infrastructure Pre-Design and Planning**										
	Pre-Design and Planning	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
	ANNUAL TOTAL	**$ 2,976,000**	**$ 3,016,000**	**$ 6,660,000**	**$ 2,251,000**	**$ 4,199,000**	**$ 2,433,000**	**$ 2,172,000**	**$ 1,920,000**	**$ 2,215,000**	**$ 1,897,000**



Chapter 11
Paying for the Plan

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CHAPTER 11 – PAYING FOR THE PLAN

This chapter describes the current finances of the Wastewater Utility as well as summarizes the financial policies and funding needed to implement the Plan. The detailed financial report by the City's financial consultant, Financial Consulting Solutions Group (FCSG), is presented in Appendix H.

The Utility finances the infrastructure improvements and planning and program implementation services described in the Plan. Finances are managed separately for operations and capital improvements. Most revenue is from monthly rates charged to customers and general facilities charges (GFCs) charged for new sewer connections.

11.1 Revenue and Expenses

Revenue primarily comes from monthly rates and funds staffing and administrative expenses, capital projects, taxes, and depreciation and amortization of capital assets. Rate revenue increased from $16.28 million in 2013 to $19.81 million in 2018. About two-thirds of this revenue is the rate charged by LOTT Clean Water Alliance (LOTT) for wastewater treatment services. This LOTT revenue is collected by the City through monthly charges and is passed through to LOTT. GFCs supplement the capital budget.

Figure 11.1 illustrates the amounts generated from Utility rates and GFCs in 2018, excluding the $12.7 million in 2018 revenues the City collected for LOTT.

For the 2018 Utility expenses, approximately 38 percent of the Utility's costs were attributable to capital projects and debt-service; the remaining 62 percent supported operations and administration expenses. The City's six-year Capital Facilities Plan (CFP) is updated each year by City Council. The CFP includes the capital projects identified in **Chapter 10**.

11.2 Assets and Liabilities

The Utility maintains a balance sheet of current and long-term assets and liabilities. Between 2013 and 2018, total assets increased from $49.5 million to $52.5 million. Current and long-term liabilities decreased from $9.06 million to $6.8 million. As of 2018, the City's long-term debt was $6.2 million from two bonds, a Public Works Trust Fund loan, and a State Revolving Fund loan.

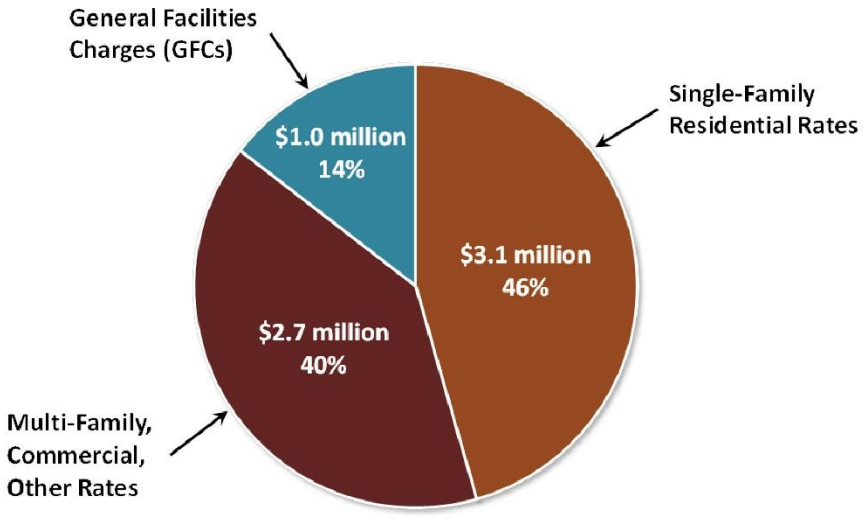


Figure 11.1 Categories of City Utility Revenue 2018

11.3 Rates and Rate Structure

The Utility's rate structure for all customers is based on equivalent residential units (ERUs). The ERU is based on the wastewater, also known as sewage, generated from residential and commercial sources. See section 2.3, Wastewater Flows, in **Chapter 2** for an explanation of how the ERU is calculated. See table 11.1 for the number of wastewater accounts by customer class.

The 2019 Utility rate for single-family customers is $13.29 to $21.47 per ERU per month. Gravity sewer, STEP system and community onsite sewage system customers pay the same monthly rate. In addition, the City collects monthly rates of $39.80 per ERU, which is paid to LOTT for wastewater treatment services. See Appendix H for additional details on current rates, including for commercial and multi-family customers.

The Utility collects general facility charges (GFCs) from new developments. These charges are one-time fees that recover a proportionate share of the costs associated with existing and planned Utility infrastructure from newcomers to the City's wastewater system. Its purpose is to promote equity between existing and future customers. The GFC establishes a pro rata share of capitalized system costs attributable to new development, and imposes that cost as a condition of service. The current wastewater GFC is $3,442 per ERU. While revenue generated by GFCs varies appreciably from year to year, annual revenues averaged approximately $1.4 million over the past five years (2014-2018).

Table 11.1 Number of City Wastewater Accounts by Customer Class as of May 1, 2019

Residential	14,414
Multi-Family	755
Commercial	1,355
Government	132
TOTAL	**16,656**

11.4 Financial Policies

As an enterprise fund, the Utility is fully self-sufficient, relying solely on its own revenues for financial viability. The consultant's analysis of the Utility's ability to fund the Plan is based on a set of fiscal policies that define the City's minimum financial criteria. These fiscal policies relate to cash management, capital funding strategy, financial performance and rate equity.

Cash Management

The City's policy is to maintain working capital and other reserves consistent with possible fluctuation in revenues and expenditures. Historically, the Utility's standard is to maintain a minimum operating fund balance equal to 10 percent of annual operating expenses (excluding payments to LOTT as a "pass-through" of revenue derived from LOTT's monthly rate). In addition, a capital contingency reserve equal to 5 percent of active capital appropriations is maintained in case of capital cost overruns or acceleration of capital expenditures.

It is worth noting that a change to a tiered flat-rate structured based on water usage for residential customers implemented in 2016 increased the volatility of Utility revenues. The primary reason for the increase in revenue volatility is that residential customers could choose to conserve water thereby falling

into a lower rate tier. In the two years since the volume-based rates were implemented, utility revenue has been at or above projected levels. However, an especially cool and wet summer could increase the number of customers at the lowest tier, decreasing revenue below projections

Capital Funding Strategy

The City has two basic policies associated with providing ongoing capital funding resources:

- To require an equitable financial contribution from all new development; this requirement is met through the GFC. GFC revenues are used first to pay current Utility debt service payments, and second as a source of cash funding for future capital projects.
- To require existing ratepayers to support the City's full cost of providing service, including annual depreciation expense on Utility assets. Though depreciation is not a cash expense per se, the City uses depreciation expense as a basis for funding capital re-investment in the system. To avoid charging customers for the future replacement of assets that they are concurrently paying for through the debt service component of rates, the City's capital re-investment policy determines annual funding levels by deducting current debt principal payments from depreciation expense in the useful life of the infrastructure. This approach does not ensure full cash funding of system replacements, but is a common way to equitably charge current customers for use and decline of the system. It provides a major source of capital re-investment, which can be augmented with use of debt financing.

Financial Performance

These policies include the requirement to maintain a balanced budget, to meet minimum reserve requirements and to set rates to ensure payment of annual debt service for revenue bonds.

11.5 Paying for the Plan

Implementation of the Plan will increase the average annual CFP funding from approximately $1.5 million to $3.9 million. Capital expenditures will total $23.9 million between 2020 and 2025. Debt financing of a portion of these costs is not anticipated.

The financial analysis established a hierarchy of capital funding:

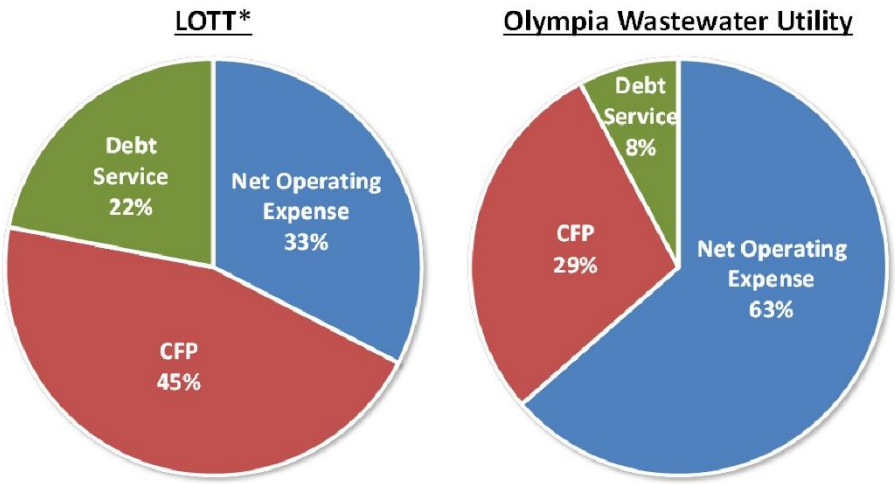
- First using available cash and investment resources; existing capital fund balances are used to directly fund project costs.
- Second, use Utility equity resources – ongoing revenue from GFCs to directly fund project costs.

The following rates will fund Plan implementation:

- Monthly City Wastewater Utility Rates: Annual rate revenue increases of 4.5 percent from 2020 – 2024.
- Increased GFC. An increase of 45 percent from $3,442.00 to $4,999.00 per ERU, to reflect the current pro rata share of system costs.

11.6 Comparison of LOTT and Olympia's Budget Categories

Implementation of the Plan is reflected in three budget categories: (1) net operating expense, (2) debt service (bonds and loans), and (3) capital facilities plan expense. Figure 11.2 shows this cost breakdown for each entity, for a two-year period.



*Source: LOTT's 2013 Budget and Capital Improvement Plan, November 14, 2012.

Figure 11.2 Comparison of LOTT and Olympia's Budget Categories, for a two-year period (2019 – 2020)

The pie charts in Figure 11.2 indicate that LOTT's budget is capital project-intensive, while the City's Wastewater Utility budget is operations and maintenance-intensive. LOTT is responsible for funding the network of infrastructure that comprises the regional treatment and transmission system. The City's Wastewater Utility budget, by contrast, is smaller in scale and funds a variety of annual operating costs including taxes, interfund transfers, and City overhead in addition to more labor-intensive functions such as field work and customer service.

2019 Wastewater Plan Appendices

A	*WAC Checklist
B	*Fact Sheet
C	* Glossary of Terms and Acronyms
D	* List of Links and References
E	*History of Olympia's Sewer System
F	*Outline of Accomplishments
G	* Capacity Analysis Methodology
H	*Financial Analysis
I	SEPA
J	*Maps

* Items provided with August Draft

*Items added to August Draft on October 9, 2019

Appendix A

Department of Ecology Requirements for General Sewer Plans

WAC 173-240-050 (as of December 2017)

General Sewer Plan

1) All general sewer plans required of any governmental agency before providing sewer service are "plans" within the requirements of RCW 90.48.110. Three copies of the proposed general sewer plan and each amendment to it must be submitted to and approved by the department before implementing the plan.

2) The general sewer plan must be sufficiently complete so that engineering reports can be developed from it without substantial alterations of concept and basic considerations.

3) The general sewer plan shall include the following information together with any other relevant data as requested by the department. To satisfy the requirements of the local government jurisdiction, additional information may be necessary.

Where in Plan each subsection of Section 3 is addressed

Subsection	Description	Chapter(s) and/or Section in Plan
a	Purpose and need for the proposed plan.	1
b	Discussion of who will own, operate and maintain the systems.	3
c	Existing and proposed service boundaries.	2.1
d	Layout map to include the following (d.i-vii):	
d.i	Boundary lines of the municipality or special district to be sewered, including vicinity map.	2.1, Appendix J
d.ii	The location, size, slope, capacity, direction of flow of all existing trunk sewers, and the boundaries of the areas served by each.	Appendix J
d.iii	The location, size, slope, capacity, direction of flow of all proposed trunk sewers, and the boundaries of the areas to be served by each.	10, Appendix J
d.iv	The location of all existing and proposed pumping stations and force mains, showing which are existing and which are proposed.	10, Appendix J

d.v	Topography showing pertinent ground elevations and surface drainage, as well as proposed and existing streets.	Appendix J
d.vi	Streams, lakes, and other bodies of water. The location and direction of flow of major streams, the high and low elevations of water surfaces at sewer outlets, and controlled overflows, if any. All existing and potential discharge locations should be noted.	2, Appendix J
d.vii	Water systems. The location of wells or other sources of water supply, water storage reservoirs and treatment plants, and water transmission facilities.	2.7, Appendix J
e	The population trend as indicated by available records and the estimated future population for the stated design period. Briefly describe the method used to determine future population trends and the concurrence of any applicable local or regional planning agencies.	2.2
f	Any existing domestic or industrial wastewater facilities within 20 miles of the general plan area and within the same topographical drainage basin containing the general plan area.	3.6, Appendix J
g	A discussion of any infiltration and inflow problems and a discussion of the actions that will alleviate these problems in the future.	5, 8.7
h	A statement regarding provisions for treatment and discussion of the adequacy of the treatment.	2.8, 3.6
i	List of all establishments producing industrial waste, the quantity of wastewater and periods of production, and the character of the industrial wastewater insofar as it may affect the sewer system or treatment plant. Consideration must be given to future industrial expansion.	3.7
j	Discussion of the location of all existing private and public wells or other sources of water supply, and distribution structures as they are related to both existing and proposed domestic wastewater treatment facilities.	Not Applicable
k	Discussion of the various alternatives evaluated, and a determination of the alternative chosen, if applicable.	10
l	A discussion, including a table, that shows the cost per service in terms of both debt service and operation and maintenance costs, of all facilities (existing and proposed) during the planning period.	11, Appendix H
m	A statement regarding compliance with any adopted water quality management plan under the Federal Water Pollution Control Act as amended.	Not Applicable
n	A statement regarding compliance with the State Environmental Policy Act (SEPA) and the National Environmental Policy Act (NEPA), if applicable.	Appendix I

Appendix B

City of Olympia Wastewater Fact Sheet

August 2019

Population and Water Use

Population (2019): City = 52,770 UGA = 12,590

City of Olympia's WW utility (2015) has approx. 26,500 ERUs

Residential ERUs (incl. duplex) = 13,100; Multi-family = 7,200; Commercial and other = 6,200

1 ERU (for non-residential billing) = up to 700 cu. ft./mo. (170 gallons per day) for local collection and 900 cu.ft./mo. (220 gpd) for LOTT wastewater treatment

Average daily flow for SFR (2018) = 150 gpd (year round, including summer irrigation)

Flow

Base flow (2017; without I&I) to LOTT = 4.34 MGD

Peak Hour Flow (2017; with I&I) = 26.9 MGD

Infrastructure

Miles of gravity sewer mains = 187

Amount of gravity pipe video inspected (2019) = 100%

Miles of sewer force main = 9.5

Miles of STEP main = 27.5

Lift stations = 31

Septic Tank Effluent Pump (STEP) tanks (2019) = 1,800

Onsite Sewage Systems (OSS) in City (2019) = 2,100

OSS in UGA (2019) = 2,125

Grinder pump connections = 280+

Miles of grinder force main = 1+

Applicable sections of Olympia Municipal Code (OMC)

4.24.010B - Rates

13.08 Sewers – Sewer Connections, Rates, Area Service Charges, Violations

13.20 Wastewater System – Pretreatment Regulations

LOTT and National Pollution Discharge Elimination System (NPDES) Permit

- Held by LOTT, but all LOTT Clean Water Alliance Partners responsible to meet permit requirements
- Current permit's 5-year term is August 1, 2019 – July 31, 2024

2019 Development Fees

Olympia Sewer GFC = $3,442.00 LOTT CDC = $6,049.21

2019 Monthly Rates (adding $1/mo. on every sewer account bill totals about $180,000/yr.)

Residential:

SFR w/ or w/out ADU; mobile home; or each unit of duplex = $53.09 to $61.27/mo.
(LOTT=$39.80 + City=$13.29 to $21.47)

Multi-family units larger than duplex (each unit) = $42.89 (70% of 1 ERU rate)

Non-residential:

Up to 1 ERU water consumption (900 cu.ft./mo. for LOTT and 700 cu.ft./mo for the City) = $61.27/mo.

Each additional 100 cu.ft./mo. water consumed: LOTT=$4.29, City=$3.07

Budget

Annual Wastewater Budget (2019) = $7.19M (does not include LOTT wastewater service charge portion of monthly)

LOTT "pass thru" wastewater service charge = $13.66M (2019; estimated)

Avg. Capital Projects/yr. = $3.9M (6-Year CFP)

Debt Service & Interfund Transfers = $1.3M (2019)

Operating Reserves = 10% of budge

1 psi = 2.3'
cu.ft. = cubic feet
1ccf = 100 cu.ft. = 25 gpd
1 cu.ft. = 7.5 gallons
1,000m^3/day = 183 gpm
" " = 0.26 MGD

1 MGD = 695 gpm
mo. = month
gpm = gallons per minute
gpd = gallons per day
gpcd = gallons per capita per day
M = million

MGD = million gallons per day
GFC = general facility charge
CDC = capacity develop. charge
SFR = single family residence
ADU = accessory dwelling unit
I&I = infiltration and inflow

UGA = Urban Growth Area
LOTT=Lacey,Oly,Tumw,Thur Co.
ERU=Equivalent Residential Unit

Appendix E

History of Olympia's Wastewater System

The following brief historical summary is drawn mainly from Olympia's earlier wastewater management plans and historical records.

1850-1950

Olympia was founded in 1850 with the establishment of the townsite. Most early settlers traveled from the central and eastern states, and were headed for the gold fields of California or Alaska, so non-Native American settlement in the South Sound area was sparse, and at first there were no public sewers or other utilities. By 1858 it became quite apparent that some control was necessary, if not for the public health then at least for a more pleasant environment. The first permanent sewers were installed in 1892. They were primarily short reaches flowing directly into Budd Inlet or the Deschutes Waterway. Sewers were expanded when needed, and the urgency of the situation usually prevailed over planning.

Until the mid-1950s, sewers carried both sanitary and storm flows in single pipes discharging into Budd Inlet. Adequate flushing and some dilution were seen as benefits over separate sanitary sewers. By the late 1940's and early 1950s, reports of pollution in Capitol Lake and Budd Inlet made it clear that significant sewer infrastructure improvements would be needed as Olympia grew. Work in the 1940s had identified the need for routing wastewater flows from Tumwater and the Olympia Brewery towards a future treatment plant.

1950 - Present

The first sewage treatment plant was constructed at the site of the present LOTT facility, adjacent to the Port of Olympia, and began operation in 1952.

In 1955 the City mandated that storm and sewer flows be separated in future systems and initiated a program to improve the situation by treating wastewater at a cursory level prior to discharge. In 1955, a Pollution Control Commission study of water quality in Budd Inlet and Capitol Lake resulted in the closure of the lake and Budd Inlet south of Priest Point Park to recreational use. The commission recommended intercepting all wastewater to eliminate outfalls into Capitol Lake, West Bay and East Bay, and diverting it to the treatment plant.

In 1956, the Thurston-Mason County Health District found that pollution in Capitol Lake had declined since Tumwater began diverting its wastewater to the treatment plant; however, contamination of Budd Inlet had increased. Its report also recommended directing flows to the treatment plant.

In 1964, Olympia constructed Capitol Lake Park with a swimming area, which was open until pollution levels caused its closure in in 1985.

In 1975, another study by the Pollution Control Commission found that effluent was present along several streets in northwest Olympia, probably because poor soils had led to failure of onsite sewage systems. To date, a fair amount of the older sewers in the downtown Olympia, Capitol neighborhood and parts of northeast Olympia remain as combined sewer systems that carry wastewater and stormwater to LOTT. See the Central Basin section of Chapter 5 for more detail.

The original treatment facility was owned and operated by the City of Olympia. The cities of Tumwater and Lacey began contracting with Olympia for sanitary sewage treatment in 1954 and 1969 respectively,

and the three cities and Thurston County formed the LOTT Partnership in 1976. Olympia continued to own and operate the treatment plant on behalf of the LOTT partnership until July 2001, when the LOTT Clean Water Alliance (as it is now called) was formalized as a separate organization.

See Chapter 3 for more information on the current LOTT Clean Water Alliance long-term management plan, facilities and programs.

Sewer System Planning

During the past 50 years, Olympia's wastewater infrastructure has grown substantially and has been extended into the Urban Growth Area (UGA). In 1960, Olympia retained the Seattle consulting firm of Hill Ingman to complete the first comprehensive sewerage and drainage report. Olympia published its next Sanitary Sewer Comprehensive Plan in 1989, added Amendment No. 1 in 1992, and updated the Plan in 1997.

In the years 2002-2013, the City completed a thorough review and revision of the planning, design standards, operations and financing of the Wastewater Utility, which resulted in the 2007 and 2013 Wastewater Management Plans.

These plans have guided development of the infrastructure for conveying sewage to the treatment plant with minimal risk to public and environmental health. Under these plans, publicly owned pipe systems have been funded, constructed, repaired and maintained.

As the City has grown in the 20th and into the 21st century, the gravity sewer system has gradually expanded to serve areas annexed into the City and the outlying UGA. Extensions have been prompted by the need to serve new subdivisions or commercial centers, with limited systematic planning. The focus has been on serving individual developments at the time of permitting rather than providing comprehensive regional service.

Extensions typically have adequate capacity for existing and future needs as well as high quality construction. However, these development-driven extensions have sometimes resulted in "leap-frog" service, and many gaps in service remain within the developed area. Areas not served by gravity sewers have utilized onsite sewage systems, and many of these properties are relatively close to sewer lines. Also, the focus on individual developments has resulted in the use of alternative technologies, such as STEP systems, that are cost effective on the development scale, but increase public costs and liability.

Management of the Wastewater Utility occurs consistent with its current Wastewater Management Plan, development regulations and 6-year Capital Facilities Plan.

Appendix D
References

City of Olympia

- Olympia Municipal Code (OMC)
- Olympia's Engineering Design and Development Standards (EDDS)
- Olympia's Comprehensive Plan
- City of Olympia Water System Plan
- City of Olympia Storm & Surface Water Plan
- City of Olympia Wastewater Utility Sewer Overflow Emergency Response Plan

Previous Olympia Wastewater Plans:

- Wastewater Management Plan, 2013
- Wastewater Management Plan, 2007
- Sewage Disposal Master Plan and Final Environmental Impact Statement, 1997
- Sanitary Sewer Comprehensive Plan, Amendment No. 1, 1992
- Sanitary Sewer Comprehensive Plan, April 1989

Thurston County

- Thurston County Environmental Health
- Article IV, Sanitary Code of Thurston County
- Thurston County Onsite Sewage System (OSS) Management Plan
- 1996 North Thurston County Coordinated Water System Plan
- Sustainable Thurston
- WRIA 13 – Deschutes
- Deschutes TMDLs

LOTT Clean Water Alliance

- Sanitary Sewer Overflow Emergency Response Plan, 2006
- Wastewater Resource Management Plan, November 1998

State of Washington

- Department of Ecology (DOE) Water Quality Program
- DOE's Criteria for Sewage Works Design manual
- Washington Administrative Code (WAC)
- Revised Code of Washington (RCW)
- Growth Management Act

United States

- Environmental Protection Agency (EPA) Wastewater Programs
- The Clean Water Act
- The Safe Drinking Water Act

FCS GROUP
Solutions-Oriented Consulting

Memorandum

To: Susan Clark, City of Olympia **Date:** August 22, 2019

From: Chris Gonzalez, Project Manager
Angie Sanchez Virnoche, Principal
Eric Millinger, Project Consultant

RE 2019 Wastewater Rate & GFC Update

The City of Olympia requested an update to its wastewater rates and general facilities charges (GFCs) to reflect the most recent estimates of operating and capital costs. Our analysis focuses primarily on the period from 2019 to 2024 using data from the 2019 Budget and the 2019 – 2039 Capital Facilities Plan (CFP) which was recently amended in August 2019. This memo explains the methodology, assumptions, and findings of our study in further detail.

Wastewater Rate Update

The City's wastewater utility is responsible for funding its costs through user fees without relying on support from tax revenues or other General Fund resources. The revenue requirement analysis determines the amount of revenue needed to meet the utility's financial obligations including:

- Compliance with fiscal policies (e.g. system reinvestment, reserve funding)
- Operating and maintenance costs
- Administration and overhead
- Capital project expenditures
- Existing and new debt service obligations

The key elements of this analysis are discussed in further detail below.

Financial Structure

The City maintains a fund structure and implements financial policies targeting management of a financially viable utility enterprise. The following funds are relevant to this analysis.

- ***Wastewater Operating Fund (Fund 402):*** Includes unrestricted resources that are used to fund operation and maintenance (O&M) expenses and all other costs that are not covered by other funds. Wastewater rate revenue and other operating revenues go into this fund.

- ***Wastewater Capital Fund (Fund 462):*** Includes resources that are restricted or otherwise set aside for capital purposes, such as GFCs and debt proceeds. The City funds its capital facilities plan (CFP) projects through this fund.

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- ***Water/Sewer Bond Redemption Fund (Fund 417):*** This is the Bond Fund required by the City's outstanding bond covenants. It includes resources set aside for the payment of principal and interest on the utilities' outstanding revenue bonds.

- ***Water/Sewer Bond Reserve (Fund 427):*** This is the Reserve Account required by the City's outstanding bond covenants, including funds set aside to secure the utilities' outstanding revenue bonds. The City will be able to use these funds to make the final payments on the utilities' outstanding bonds or release them for other purposes after the outstanding bonds have been paid.

Fiscal Policies

This analysis is based on a framework of fiscal policies that promote the financial integrity and stability of the wastewater utility. A brief summary of the key financial policies employed by the wastewater utility, as well as those recommended and incorporated in the financial program are discussed below.

A. Reserve Funds

Like any business, a municipal utility requires certain minimum levels of cash reserves to operate – these reserves address variability and timing of expenditures and receipts, as well as occasional disruptions in activities, costs or revenues. Given the wastewater utility's responsibility to provide an essential service at a certain standard, protection against financial disruptions is even more important than it would be for a private sector or non-essential counterpart. In addition to protecting the utility against financial disruption, a defined reserve structure serves to maintain appropriate segregations of funds and to promote the use of resources for their intended purposes. The analysis reflects the following policy assumptions for the wastewater utility's reserves:

- The City's adopted financial policies require the utility to maintain a minimum balance equal to 10% of annual operating expenses in the Operating Fund. This policy intends to provide liquid "working capital" to accommodate cash balance fluctuations associated with differences in revenue and expense cycles along with other unforeseen variations in revenues or costs.

- The Capital Fund is assumed to maintain a minimum reserve balance equal to 5% of active capital appropriations as a capital contingency reserve. This policy intends to provide a source of funding for unanticipated capital needs, such as project cost overruns.

- The City's bond covenants define a minimum balance for the bond reserve based on the lowest of three measures: (a) 1.25 times total annual revenue bond debt service, (b) maximum annual revenue bond debt service, and (c) 10% of the initial principal amount for each outstanding bond.

B. Capital Investment

The City has established two major policies related to capital investment.

- Existing ratepayers should bear a cost commensurate with the full cost of providing service, including both cash outlays and the decline in useful life of existing infrastructure (which is not a direct cash expense until asset replacement is required). Existing customers benefit from a system of infrastructure that has been funded through a combination of sources; this infrastructure deteriorates over its useful life and will eventually fail, requiring replacement.

- New development should make an equitable financial contribution to the wastewater utility. The GFC promotes equity between existing and future customers, representing a pro rata share of system capital costs attributable to new development. As provided for in Section 35.92.025 of the Revised Code of Washington (RCW), new customers pay the GFC as a condition of receiving utility service.

There are numerous approaches to defining a benchmark for annual system reinvestment. This analysis assumes that the wastewater utility sets a long-term goal of funding annual depreciation expense through rates, phasing this level of funding in over the study period to mitigate rate impacts. While this approach does not ensure full cash funding of system replacements, it provides a reasonable basis for equitably charging current customers for the decline in the value of the system attributable to their use of it.

C. Financial Performance Standards

This analysis defines the amount of revenue needed in a given year to meet the wastewater utility's expected financial obligations in the context of two revenue sufficiency tests:

- ***Cash Flow Sufficiency Test:*** This test determines whether or not annual revenues are sufficient to cover the known cash requirements for each year of the planning period. These cash requirements typically include O&M expenses, debt service payments, rate-funded capital outlays, and any additions to reserve balances.

- ***Coverage Test:*** This test evaluates the utility's ability to meet applicable bond coverage requirements specified by the City's bond covenants and internal debt policies. Specifically, it determines "net revenue" as a percentage or multiple of annual parity bond debt service. For the purpose of this test, the City's bond covenants define "net revenue" as all earnings, revenue and money (except Assessments) net of operating expenses excluding depreciation and City-imposed taxes. This test generally does not allow the use of reserves to meet annual coverage obligations.

In determining the annual revenue requirement, the test with the greatest deficiency generally drives the rate increase in any given year. It is worth noting that the City can temporarily waive the requirements of the cash flow test as part of a conscious decision to phase in rate increases, as long as its reserve balances are sufficient to absorb the resulting cash flow deficit. The coverage test, however, must always be met as failure to do so may result in a downgrading of the City's bond rating.

Operating Revenue & Expense Forecast

The forecast of operating revenues and expenses is initially based on the 2019 Budget, with adjustments for anticipated inflation and customer growth.

- Most operating costs are increased with anticipated inflation in the Seattle Consumer Price Index (CPI), which is assumed to vary between 2.0% and 2.1% per year based on the June 2019 forecast published by the State Economic and Revenue Forecast Council. Beyond the five-year period covered in the State's forecast, this analysis assumes an annual CPI inflation rate of 2.1%.

- The forecast of payments to LOTT for wastewater treatment is set to equal the projected revenue from LOTT's charges that the City passes on to its customers. These projections reflect assumed increases of 3.0% per year to LOTT's rates and the City's forecast of equivalent residential units (ERUs), which suggests an average annual growth rate of 1.96% during the study period.

- Variable operating costs such as electricity are assumed to increase by 4.0 – 4.1% per year, reflecting both CPI inflation and customer growth.

- Taxes are calculated based on projected revenues and applicable tax rates.

  - State excise taxes are computed based on projected revenues and the City's tax reporting methodology. Most operating revenues (net of payments to LOTT) are split between collection and transmission, which are respectively taxed at 3.852% and 1.5%. To inform this analysis, the City allocated its sewer mains between collection and transmission based on pipe length using a definition established by the Washington State Supreme Court in *City of Spokane v. Washington State Department of Revenue (2001)*. The City's analysis found that collection mains (mains with no upstream junctions except for side sewers) represented 44.8% of the total length of sewer mains in the City's system. The remaining 55.2% of the pipe length was allocated to transmission, resulting in an effective wastewater revenue tax rate of about 2.55%. Note that this rate does not apply to GFC revenues and miscellaneous operating revenues, which are taxed at 1.5%.

  - Olympia utility taxes are computed as 10% of rate revenue (under City and LOTT rates) and other operating revenue.

  - Tumwater utility taxes are based on 6% of rate revenue received from customers that are within Tumwater's corporate boundaries.

- Rate revenues are assumed to increase with growth in the customer base.

- Investment earnings are calculated from projected fund balances, assuming a near-term earnings rate of 1.0% per year.

Capital Revenue & Expense Forecast

The City typically funds the cost of its CFP projects through a mix of existing cash balances, GFCs, grants, and new debt proceeds. Given the timing and magnitude of these costs, utility rates are more commonly used to pay for annual debt service associated with these projects (though certain projects or portions of project costs can be funded through rates).

Exhibit 1 summarizes the 20-year CFP:

Exhibit 1: CFP Project Cost Summary ($000s)

Wastewater Capital Facilities Plan	2019 – 2024 CFP							2025-39 CFP	Total CFP
	2019	2020	2021	2022	2023	2024	Total		
Asphalt Overlays (9021)	$ 12	$ -	$ -	$ 14	$ -	$ -	$ 26	$ 70	$ 96
Replacements & Repairs (9703)	1,307	977	1,105	977	977	1,105	6,448	21,615	28,063
Lift Stations (9806)	1,218	2,541	654	906	339	1,411	7,069	11,485	18,554
Sewer System Planning (9808)	128	93	93	93	93	93	593	1,395	1,988
Pipe Extensions (9809)	-	-	-	-	-	1,540	1,540	3,080	4,620
Pipe Capacity Upgrades (9810)	-	-	1,477	-	2,124	-	3,601	725	4,326
Onsite Sewage System Conversions (9813)	370	407	407	407	407	407	2,405	6,105	8,510
Infrastructure Pre-Design and Planning	44	250	250	250	250	250	1,294	3,750	5,044
Total (2019 Dollars)	**$ 3,079**	**$ 4,268**	**$ 3,986**	**$ 2,647**	**$ 4,190**	**$ 4,806**	**$ 22,976**	**$ 48,225**	**$ 71,201**
Plus: Adjustment for Inflation	-	213	409	417	903	1,328	3,270	30,537	33,807
Total Projected Capital Costs	**$ 3,079**	$ 4,481	$ 4,395	$ 3,064	$ 5,093	$ 6,134	$ 26,246	$ 78,762	$105,008

The capital project costs shown in **Exhibit 1** were provided by City staff and reflect an adjustment for assumed construction cost inflation at a rate of 5.0% per year. The financial forecast includes the development of a funding strategy for these costs based on the following principles:

- Any grants or contributions would be applied first to cover eligible project costs. *This analysis does not assume the availability of any such funds.*

- Low-cost loans, such as Public Works Trust Fund (PWTF) or State Revolving Fund (SRF) loan proceeds, would then be applied to eligible project costs. *This analysis does not assume the availability of any new loans.*

- The utility's cash resources are then applied as available to cover costs in excess of any grants or loans. Sources of cash for this purpose include the existing Capital Fund balance, GFC revenues, unspent bond or loan proceeds, rate-funded transfers for system reinvestment, and other transfers from the Operating Fund.

- Revenue bonds are issued to fund costs that exceed the utility's available cash resources. This analysis assumes a 20-year repayment term and an interest rate of 4% for new bonds. *The City has indicated a preference to fund capital needs on a "pay-as-you-go" basis, so this analysis does not assume any future bond issuance.*

Exhibit 2 summarizes the 6-year capital financing strategy:

Exhibit 2: Proposed CFP Funding Strategy ($000s)

Capital Fund Summary	2019	2020	2021	2022	2023	2024	Total
Beginning Balance	$ 8,029	$ 6,986	$ 4,625	$ 3,179	$ 3,396	$ 1,881	$ 8,029
Plus: Interest Earnings	-	70	46	32	34	19	201
Plus: GFC Revenue	1,295	1,269	1,912	1,949	1,987	2,026	10,438
Plus: System Reinvestment Funding	741	782	991	1,300	1,556	2,550	7,920
Less: CFP Project Expenditures	(3,079)	(4,481)	(4,395)	(3,064)	(5,093)	(6,134)	(26,246)
Ending Balance	**$ 6,986**	**$ 4,625**	**$ 3,179**	**$ 3,396**	**$ 1,881**	**$ 342**	**$ 342**
Minimum Balance (5% of Annual CFP)	**$ 154**	**$ 224**	**$ 220**	**$ 153**	**$ 255**	**$ 307**	**$ 307**

Exhibit 2 indicates that the City will have sufficient cash resources to pay for the projected capital costs without any additional debt issuance. This finding relies on the following assumptions:

- The wastewater utility adds an average of roughly 500 new ERUs per year, generating $10.4 million in GFC revenue over the study period.

- The City increases rate-funded system reinvestment from $741,000 to $2,550,000 per year. As shown in **Exhibit 2**, the projected system reinvestment transfers will generate $7.9 million in funding over the study period. **Exhibit 2** shows the Capital Fund ending 2024 with a balance of approximately $342,000, which is only $35,000 above the minimum balance of $307,000 – this suggests that these increased transfers will be necessary in order to keep the Capital Fund balance at or above the minimum balance specified by City policy.

Given the capital funding strategy shown in **Exhibit 2**, the near-term financial forecast does not show any direct rate funding for the capital projects identified in the CFP. However, there are certain capital-related costs that will impact the estimated revenue needs:

- ***Debt Service:*** The wastewater utility currently has payment obligations for two revenue bonds. It is responsible for paying for debt service on the 2010 Bonds and 2.42% of the debt service on the 2013 Bonds. In addition, it has two outstanding loans: 1 Public Works Trust Fund (PWTF) loan for the Sleater-Kinney Sewer Line, and 1 State Revolving Fund (SRF) loan for the City's septic conversion program. The wastewater utility's annual debt service expense is currently about $606,000, and is expected to drop to $581,000 over the study period.

- ***System Reinvestment Funding:*** As shown in **Exhibit 2**, rates are expected to fund a system reinvestment funding transfer for $741,000 in 2019 and $782,000 in 2020. Based on the longer-term policy goals of funding transfers based on depreciation expense and cash-funding the wastewater utility's capital needs, this analysis increases the annual transfers to $2,550,000 by 2024.

Evaluation of Revenue Requirements

The revenue requirement analysis determines the annual revenue required to fund the projected operating expenses, capital costs, and policy-based requirements (e.g. reserve funding, system reinvestment funding).

Exhibit 3 summarizes the annual revenue requirement forecast through 2024, indicating that the City's local wastewater rates are insufficient to cover the required reinvestment on top of the utility's local operating costs (excluding LOTT charges, which are covered by LOTT revenues) and debt service. This cash flow deficiency is expected to grow primarily due to the assumed increases in system reinvestment, but it is also worth noting that operating expenses are projected to increase by an average rate of 3.0% per year while revenues increase by just under 2.0% per year. The rate revenue strategy shown in **Exhibit 3** is set to cover the projected operating deficit and support the level of system reinvestment needed to cash-fund the utility's anticipated capital needs.

Exhibit 3: Revenue Requirement Forecast

Revenue Requirement Forecast	2019	2020	2021	2022	2023	2024
Revenues						
City Wastewater Rate Revenue	$ 7,029	$ 7,167	$ 7,307	$ 7,451	$ 7,597	$ 7,745
LOTT Wastewater Rate Revenue	13,662	14,347	15,067	15,824	16,618	17,452
Other Operating Revenue	34	35	36	37	38	40
Total	**$ 20,724**	**$ 21,549**	**$ 22,410**	**$ 23,311**	**$ 24,253**	**$ 25,238**
Expenses						
City Operating Expenses	$ 5,848	$ 6,018	$ 6,199	$ 6,386	$ 6,583	$ 6,787
LOTT Charges	13,662	14,347	15,067	15,824	16,618	17,452
Debt Service	606	604	606	602	604	581
System Reinvestment Funding	741	782	991	1,300	1,556	2,550
Total	**$ 20,857**	**$ 21,751**	**$ 22,864**	**$ 24,112**	**$ 25,361**	**$ 27,370**
Net Cash Flow	($ 133)	($ 202)	($ 453)	($ 801)	($ 1,108)	($ 2,133)
Bond Coverage at Existing Rates	2.42	2.50	2.36	2.27	2.16	2.12
Annual City Wastewater Rate Increase		**4.5%**	**4.5%**	**4.5%**	**4.5%**	**4.5%**
Summary After Rate Increases:						
Net Cash Flow	($ 133)	$ 80	$ 135	$ 119	$ 171	($ 465)
Debt Service Coverage	2.42	3.07	3.53	4.10	4.71	5.59
Operating Fund Ending Balance	$ 2,975	$ 3,054	$ 3,189	$ 3,308	$ 3,479	$ 3,014
Operating Fund Minimum Balance	$ 1,951	$ 2,037	$ 2,127	$ 2,221	$ 2,320	$ 2,424

Current & Projected Wastewater Rates

The City of Olympia's wastewater rates are composed of charges for the local City conveyance system and pass-through charges for LOTT wastewater treatment. Residential customers pay a fixed bimonthly charge, with a discounted rate applying to single-family customers using less than 500 cubic feet per bimonthly billing cycle. Commercial customers pay both a fixed bimonthly charge and a volume charge per hundred cubic feet (ccf) of their metered water usage – the LOTT volume charge applies to usage over 1,800 cubic feet per billing period; to recognize recent downward trends in water consumption, the City's local volume charge applies to usage over 1,400 cubic feet per billing period.

Consistent with the underlying assumptions used in the revenue requirement forecast, the LOTT rates are increased annually by 3.0% per year. Note that actual LOTT rates are subject to revision by LOTT's Board and may vary from the adjustments assumed in this analysis. **Exhibit 4** shows the wastewater rate forecast over the study period, assuming across-the-board adjustments to the existing wastewater rate structure.

Exhibit 4: Bimonthly Wastewater Rate Forecast

Bimonthly City Wastewater Rates	2019	2020	2021	2022	2023	2024
Projected City Rate Increases		***4.50%***	***4.50%***	***4.50%***	***4.50%***	***4.50%***
Assumed LOTT Rate Increases		***3.00%***	***3.00%***	***3.00%***	***3.00%***	***3.00%***
Single-Family Residential - Standard						
City Fee	$ 42.94	$ 44.87	$ 46.89	$ 49.00	$ 51.21	$ 53.51
LOTT Fee	79.60	81.99	84.45	86.98	89.59	92.28
Total Fee	$ 122.54	$ 126.86	$ 131.34	$ 135.98	$ 140.80	$ 145.79
Single-Family Residential - Discounted						
City Fee	$ 26.58	$ 27.78	$ 29.03	$ 30.34	$ 31.71	$ 33.14
LOTT Fee	79.60	81.99	84.45	86.98	89.59	92.28
Total Fee	$ 106.18	$ 109.77	$ 113.48	$ 117.32	$ 121.30	$ 125.42
Multi-Family Residential (Per Unit)						
City Fee	$ 30.06	$ 31.41	$ 32.82	$ 34.30	$ 35.84	$ 37.45
LOTT Fee	55.72	57.39	59.11	60.88	62.71	64.59
Total Fee	$ 85.78	$ 88.80	$ 91.93	$ 95.18	$ 98.55	$ 102.04
Commercial						
City Fee for ≤ 1,400 cf	$ 42.94	$ 44.87	$ 46.89	$ 49.00	$ 51.21	$ 53.51
City Fee for Additional Water Usage	$ 3.07	$ 3.21	$ 3.35	$ 3.50	$ 3.66	$ 3.82
LOTT Fee for ≤ 1,800 cf	$ 79.60	$ 81.99	$ 84.45	$ 86.98	$ 89.59	$ 92.28
LOTT Fee for Additional Water Usage	$ 4.42	$ 4.55	$ 4.69	$ 4.83	$ 4.97	$ 5.12

Exhibit 5 compares sample bills under the City's rates to those under the rates of other local jurisdictions.

Exhibit 5: Sample Bimonthly Bill Comparison

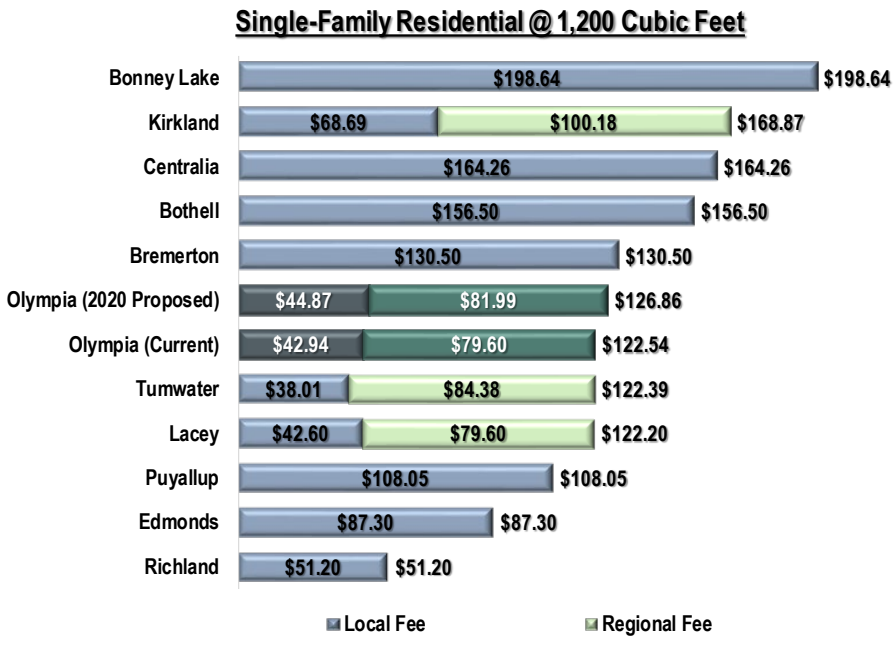


Exhibit 5 (Continued): Sample Bimonthly Bill Comparison

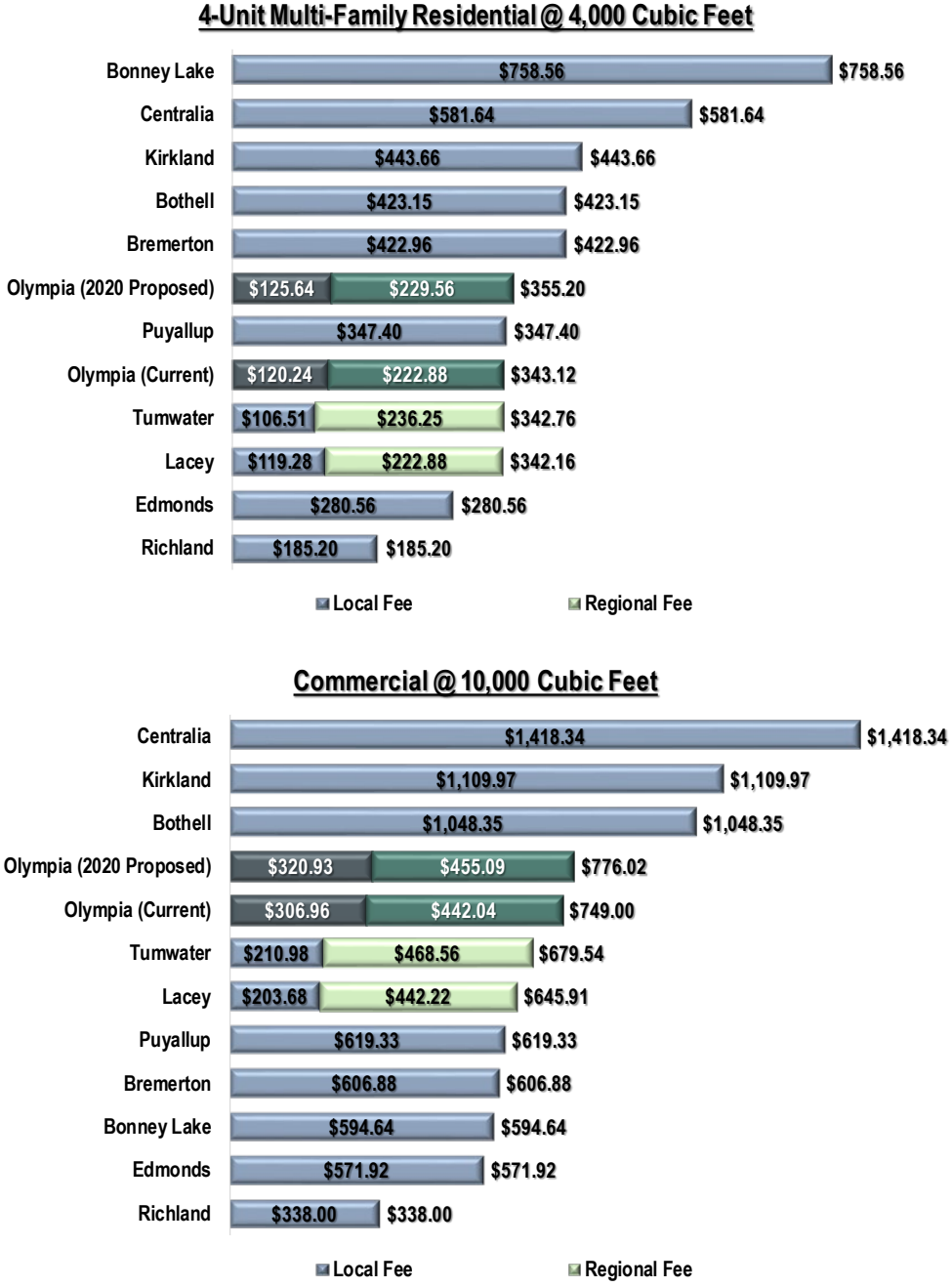


Exhibit 5 suggests that under the City's wastewater rates, the sample customers pay amounts that are reasonable in the context of what the other jurisdictions charge for service. With these types of comparisons, it is important to recognize that each utility's rates are a product of a unique set of underlying operating conditions, management philosophies, and policy decisions.

Affordability

The Department of Health and the Department of Commerce's Public Works Board use an affordability index to prioritize low-cost loan awards depending on whether rates exceed 2.0% of the median

household income for the service area. The median household income for the City of Olympia was $55,539 in the 2013 – 2017 American Community Survey conducted by the U.S. Census Bureau, corresponding to a maximum annual wastewater bill of $1,110.78, or $185.13 bimonthly. The residential bills shown in **Exhibit 5** are significantly below this threshold, suggesting that the City's wastewater rate structure is reasonably affordable.

GFC Update

GFCs are a form of connection charge authorized in Section 35.92.025 of the Revised Code of Washington (RCW). GFCs are imposed on new customers connecting to the system as a condition of service, in addition to any other costs related to connecting a customer to the wastewater system. The GFC is typically based on a blend of historical and planned future capital investment in system infrastructure; its underlying premise is that growth (future customers) will pay for growth-related costs that the utility has incurred (or will incur) to provide capacity to serve new customers.

The key components of the GFC calculation are described below.

- ***Existing Cost Basis:*** The GFC recovers a proportionate share of the cost of existing assets from growth. The total cost of the existing wastewater system is established from the City's fixed asset records, which indicate a total original cost of $70.9 million for assets booked as of December 31, 2018. This initial cost basis is adjusted as follows:
  - $13.4 million in assets that were donated or funded by grants are deducted from the cost basis on the premise that the GFC should only recover costs actually incurred by the wastewater utility.
  - $18.5 million in estimated asset retirements are deducted from the cost basis to recognize that some of the CFP projects involve replacing existing assets. This adjustment is an alternative to excluding replacement project costs from the GFC cost basis, and recognizes that asset replacement project costs will generally cost more than the original construction costs included in the fixed asset schedule.
  - $21.5 million in interest is added to the cost basis as allowed under RCW 35.92.025. Note that the GFC cost basis only includes up to 10 years of interest accrued on assets that are included in the cost basis.
  - $20,777 in construction work in progress is added to acknowledge investments that the wastewater utility has made in capital projects that are currently underway, but that have not been booked as assets or included in future CFP cost projections.
- ***Future System Costs:*** The GFC recovers a proportionate share of costs associated with future capital projects from growth to recognize that growth either directly drives or otherwise benefits from these projects. Capital projects identified in the 20-year CFP are separated between expansion projects (which provide increased capacity needed for growth and are allocated only to new growth), and upgrade and replacement projects (which benefit both existing and future customers). For the purpose of this calculation, the CFP project cost estimates are expressed in 2019 dollars.

- ***Customer Base:*** The customer base is expressed in terms of ERUs. The City's ERU forecast indicates that the wastewater system will need to serve 37,507 ERUs by 2040, representing estimated capacity of 9,175 ERUs over the current customer base.

Exhibit 6 summarizes the updated wastewater GFC calculation:

Exhibit 6: Wastewater GFC Calculation

Wastewater GFC Calculation	2019 Calculation	2013 Calculation
Existing Facilities Component		
Plant-In-Service as of Year-End 2018	$70,861,259	$51,209,831
Less: Contributed/Grant-Funded Assets	(13,434,160)	(11,896,681)
Less: Provision for Asset Retirements	(18,532,787)	(5,576,340)
Plus: Interest Accrued on Assets Included in GFC	21,472,598	21,347,149
Plus: Construction Work in Progress	20,777	12,241,135
Net Existing Cost Basis	$60,387,686	$64,683,309
Total Customer Base (Existing + Growth)	37,507	35,320
Existing Facilities Charge per ERU	**$1,610**	**$1,831**
Future Facilities Component		
CFP Costs Allocable to All Customers	$44,562,805	$20,181,744
Total Customer Base (Existing Plus Growth)	37,507	35,320
Charge for Facilities Allocable to All Customers	$1,188	$571
CFP Costs Exclusively Allocable to Growth	$20,190,041	$8,917,376
Projected ERU Growth	9,175	9,491
Charge for Facilities Exclusively Allocable to Growth	$2,201	$940
Future Facilities Charge per ERU	**$3,389**	**$1,511**
Total Wastewater GFC per ERU	**$4,999**	**$3,342**

The current wastewater GFC of $3,442 per ERU is based on a calculation prepared as part of the City's 2013 Wastewater Management Plan update plus a 3% inflationary increase that the City implemented in 2016. The updated GFC per ERU, $4,999 per ERU, represents an increase of $1,557 (45%) over the existing GFC. Considering the information presented in **Exhibit 6**, the key driver for this increase is a substantial increase in the projected cost of CFP projects compared to the previous calculation. Offsetting the increase in the future facilities component of the charge is a decrease in the existing facilities component resulting from the fact that much of the projected CFP cost is attributable to projects that will replace existing assets.

Conclusion

The City of Olympia's wastewater utility is in solid financial condition and, through this document, has a financial plan which enables it to meet projected capital and operational requirements outlined in this plan while maintaining reasonably affordable rates. The financial plan includes the following key elements:

- Fiscal policies which provide for a stable and predictable level of capital funding from rates.

- A capital funding strategy which relies on cash resources including reserves, GFC revenues and policy-based rate funding. Additional loans and revenue bonds would be considered to augment

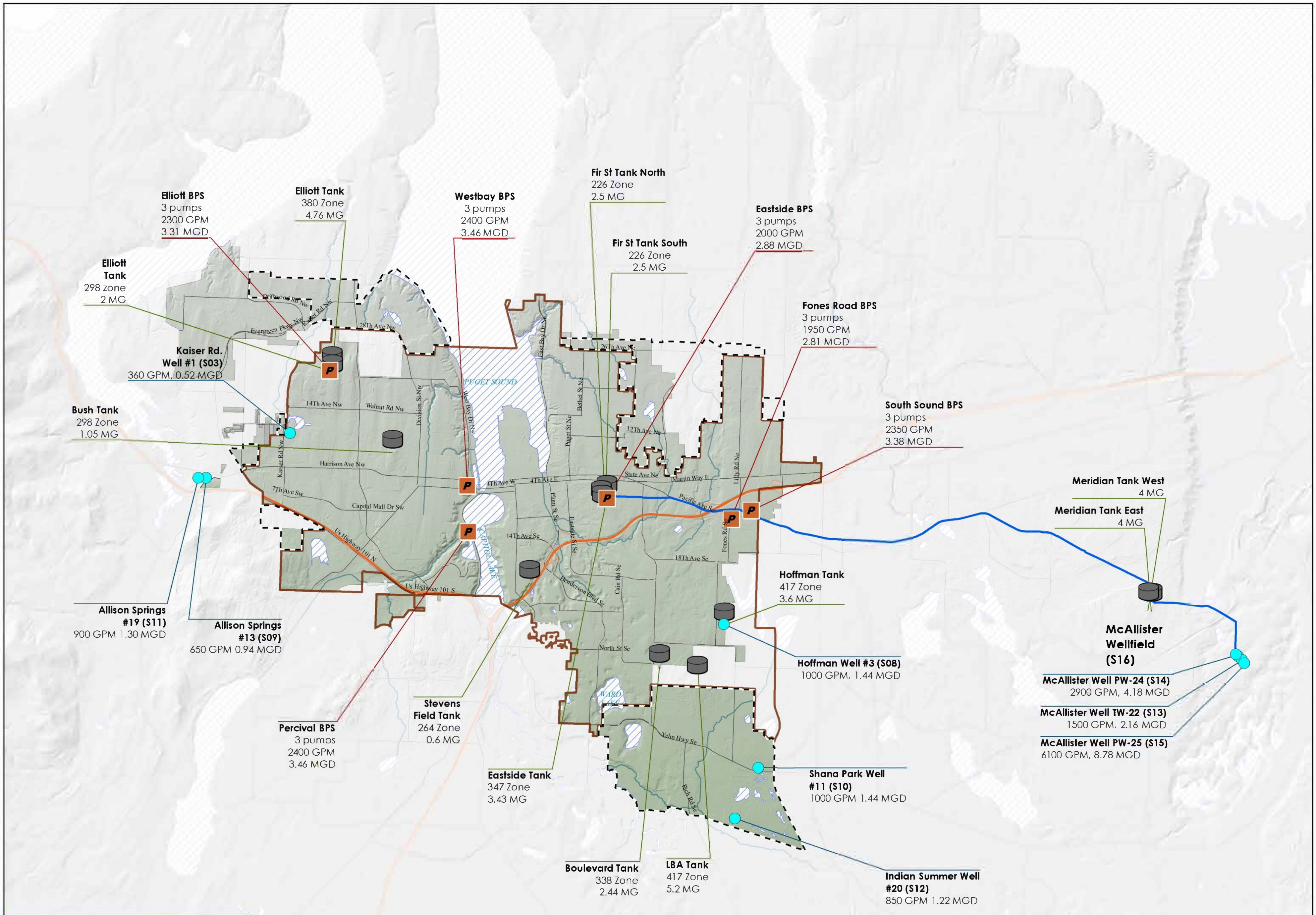
the cash funding sources as needed. In the event that additional debt issuance is required, the City should investigate and pursue low-cost loans and related assistance programs to the degree possible.

- An increase in the GFC to $4,999 per ERU to reflect the current pro rata share of system costs. To be conservative, the revenue requirement analysis does not assume implementation of this charge – in the event that the City were to adopt it, it would increase the amount of cash funding available to the wastewater utility for CFP projects.

- A series of moderate 4.5% annual rate increases to accommodate projected operating and capital needs (shown in **Exhibit 3**), which results in a cumulative increase of roughly 25% from 2020 through 2024. Note that these projected increases are based on a series of assumptions discussed in this memo – though the recommended financial structure is robust enough to accommodate a variety of unforeseen circumstances, the City should regularly review the fiscal health of the wastewater utility.

Appendix M

Maps - Wastewater Management Plan 2019



Water System Service Area
City Limits
UGA
Production Wells
Booster Pump Stations
Water Tank/Reservoir
36" Main
Water System Service Area

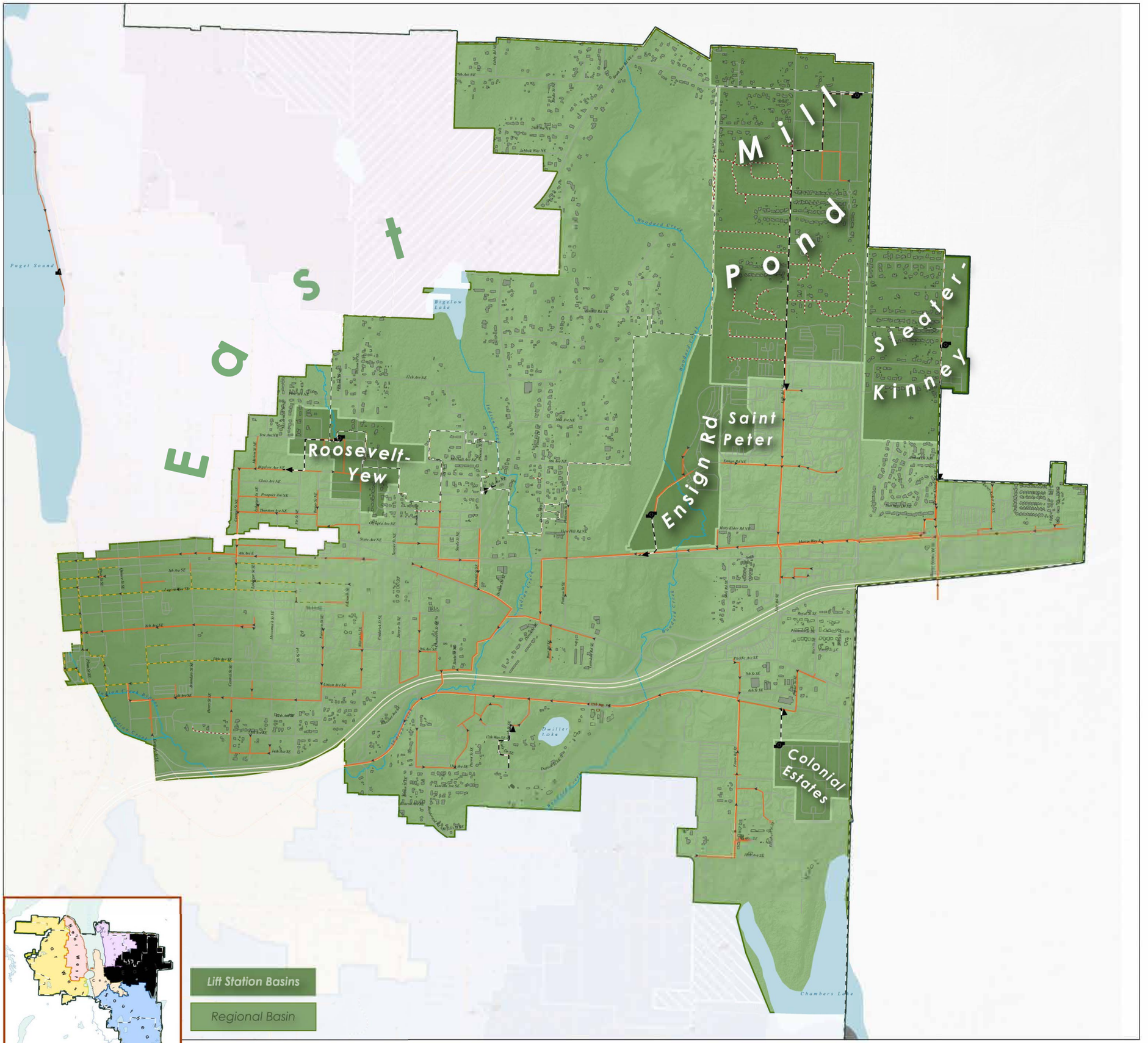
Olympia

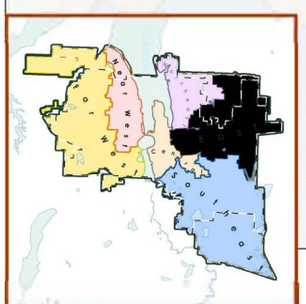
Created April 2019

Olympia
2019 Wastewater Management Plan

Drinking Water System

Thurston County





2019 Wastewater Management Plan

East Regional Basin

0 0.15 0.3 Mile

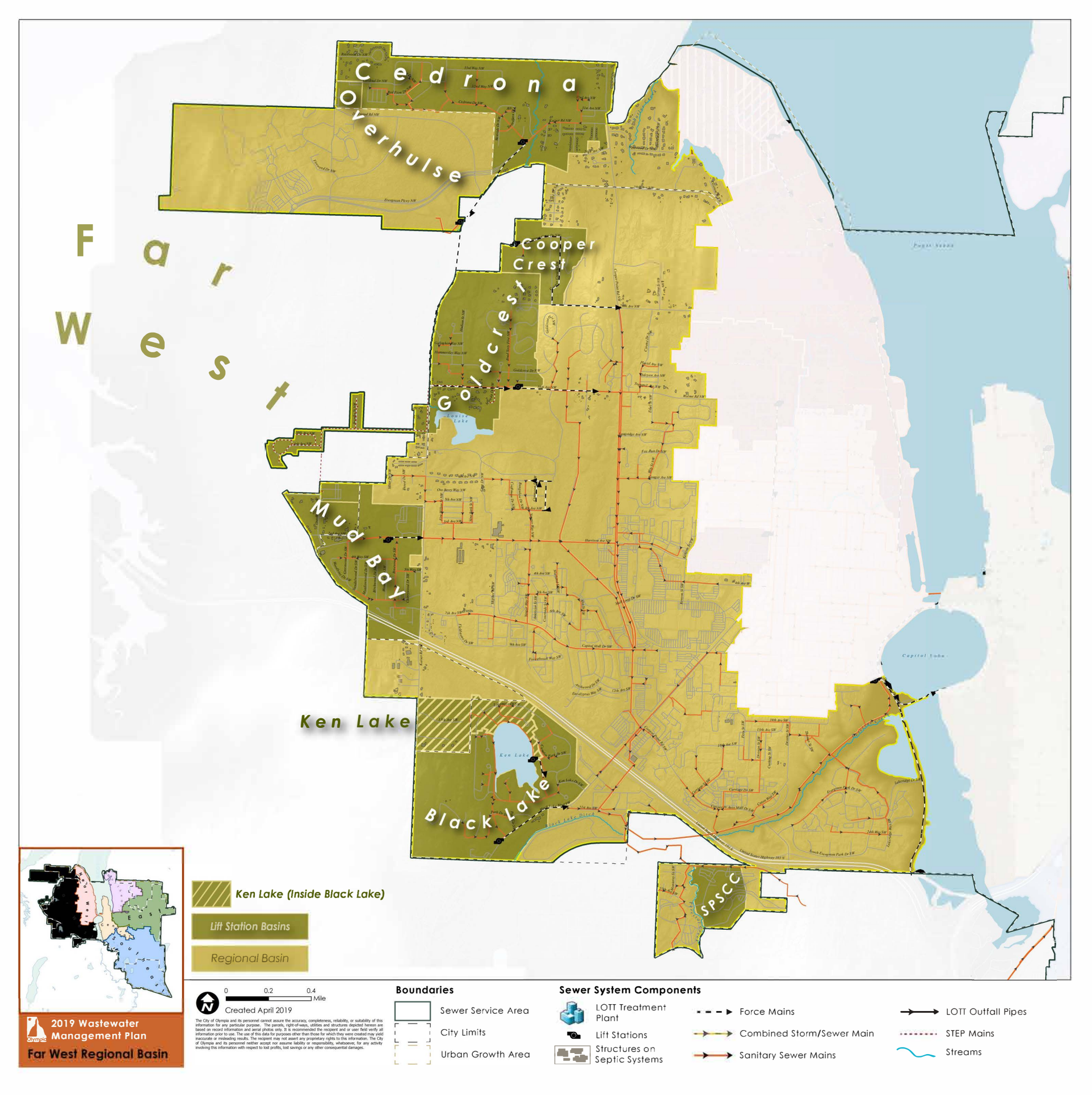
Created April 2019

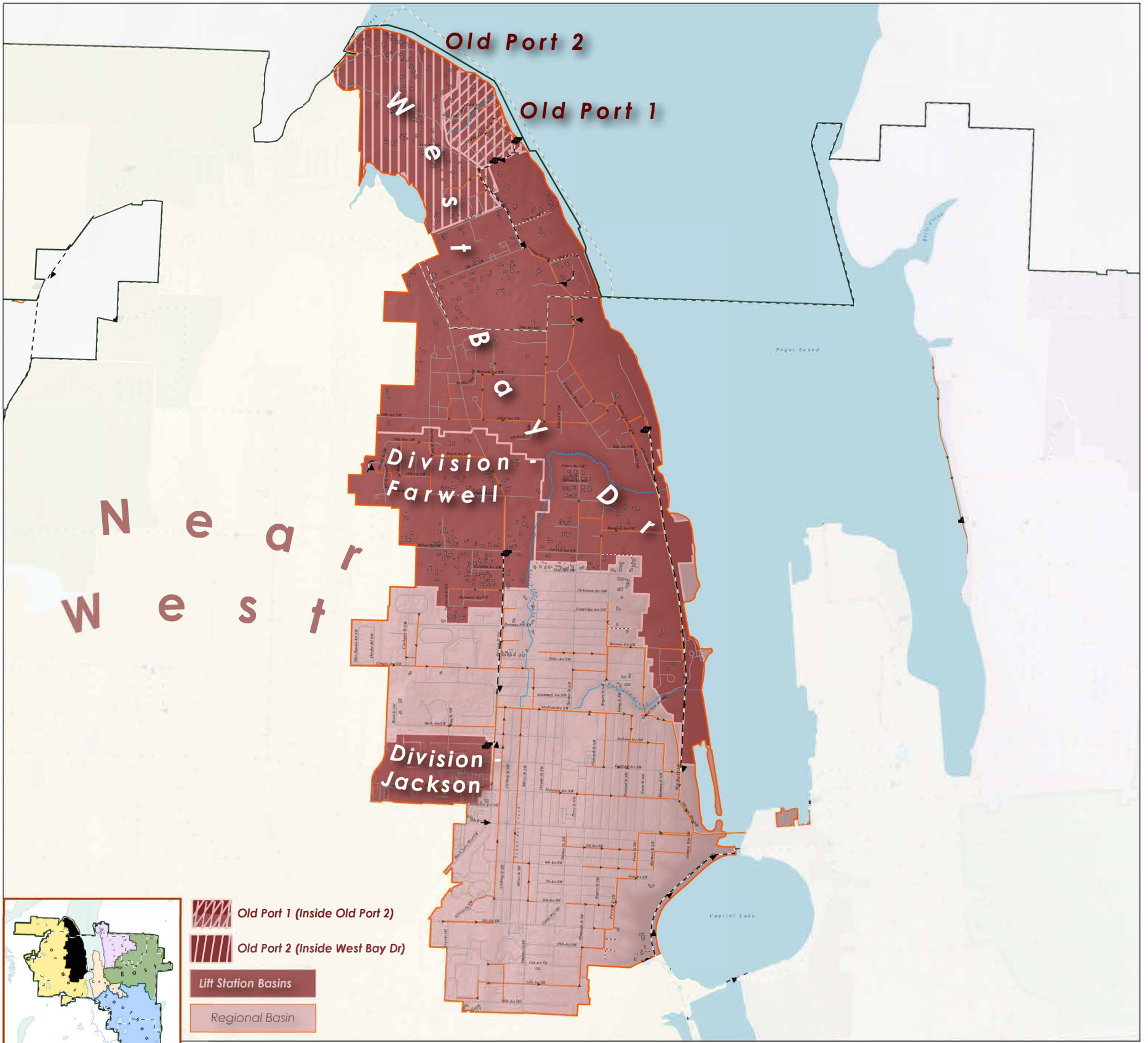
Boundaries

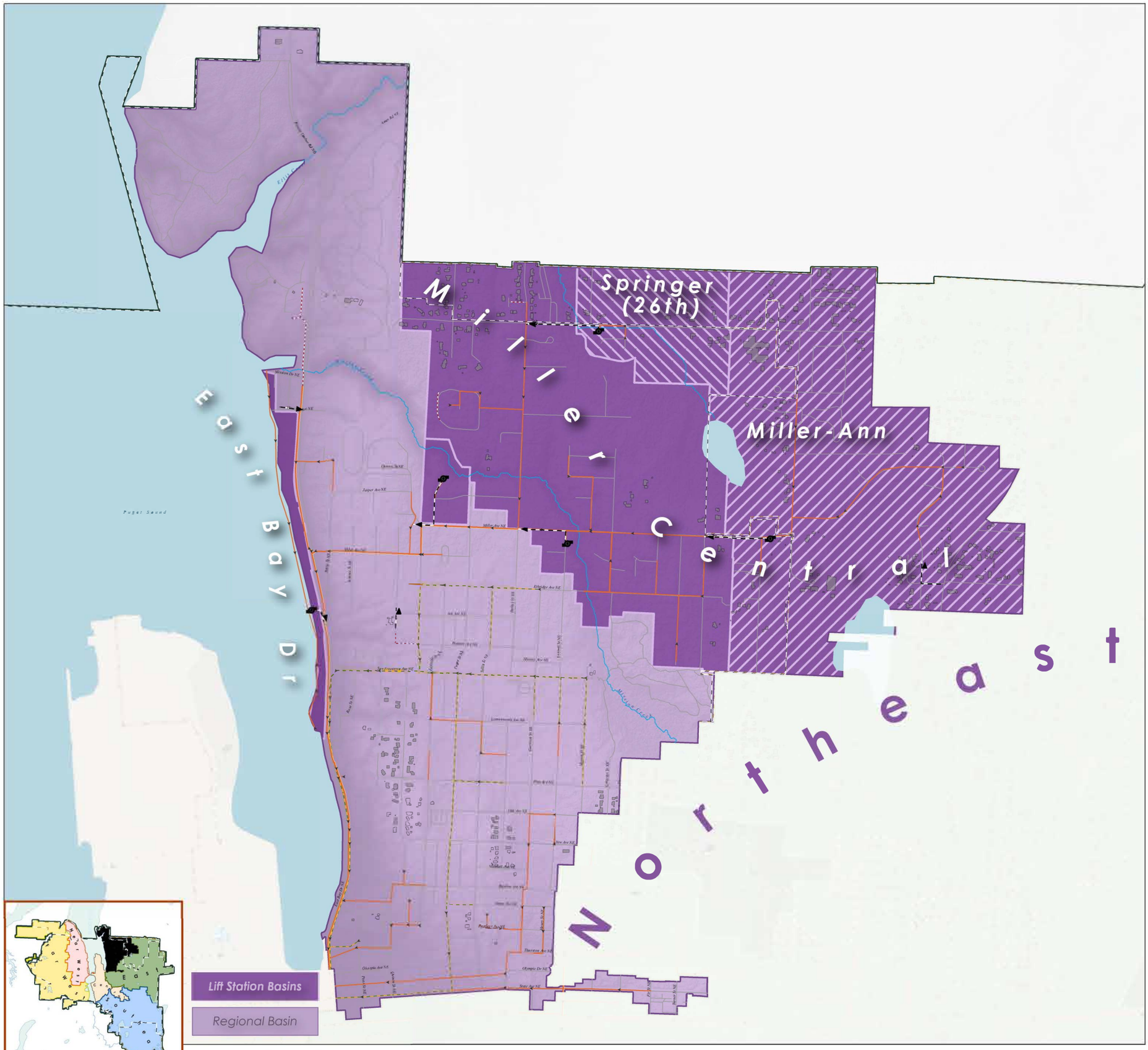
- Sewer Service Area
- City Limits
- Urban Growth Area

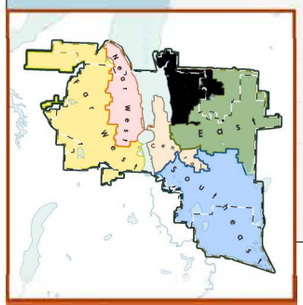
Sewer System Components

- LOTT Treatment Plant
- Lift Stations
- Structures on Septic Systems
- Force Mains
- Combined Storm/Sewer Main
- Sanitary Sewer Mains
- LOTT Outfall Pipes
- STEP Mains
- Streams


Cedrona
Overhulse
Far West
Cooper Crest
Goldcrest
Louise Lake
Mud Bay
Ken Lake
Black Lake
SPSCC
Capitol Lake
Ken Lake (Inside Black Lake)
Lift Station Basins
Regional Basin
2019 Wastewater Management Plan
Far West Regional Basin
0 0.2 0.4 Mile
Created April 2019
The City of Olympia and its personnel cannot assure the accuracy, completeness, reliability, or suitability of this information for any particular purpose. The parcels, right-of-ways, utilities and structures depicted hereon are based on record information and aerial photos only. It is recommended the recipient and or user field verify all information prior to use. The use of this data for purposes other than those for which they were created may yield inaccurate or misleading results. The recipient may not assert any proprietary rights to this information. The City of Olympia and its personnel neither accept nor assume liability or responsibility, whatsoever, for any activity involving this information with respect to lost profits, lost savings or any other consequential damages.
Boundaries
Sewer Service Area
City Limits
Urban Growth Area
Sewer System Components
LOTT Treatment Plant
Lift Stations
Structures on Septic Systems
Force Mains
Combined Storm/Sewer Main
Sanitary Sewer Mains
LOTT Outfall Pipes
STEP Mains
Streams


Old Port 2
Old Port 1
West Bay Dr
Division - Farwell
Division - Jackson
Near West
Old Port 1 (Inside Old Port 2)
Old Port 2 (Inside West Bay Dr)
Lift Station Basins
Regional Basin
0 0.15 0.3 Mile
Created April 2019
The City of Olympia and its personnel cannot assure the accuracy, completeness, reliability, or suitability of this information for any particular purpose. The parcels, right-of-ways, utilities and structures depicted hereon are based on record information and aerial photos only. It is recommended the recipient and or user field verify all information prior to use. The use of this data for purposes other than those for which they were created may yield inaccurate or misleading results. The recipient may not assert any proprietary rights to this information. The City of Olympia and its personnel neither accept nor assume liability or responsibility, whatsoever, for any activity involving this information with respect to lost profits, lost savings or any other consequential damages.
Boundaries
Sewer Service Area
City Limits
Urban Growth Area
Sewer System Components
LOTT Treatment Plant
Lift Stations
Structures on Septic Systems
Force Mains
Combined Storm/Sewer Main
Sanitary Sewer Mains
LOTT Outfall Pipes
STEP Mains
Streams
2019 Wastewater Management Plan
Near West Regional Basin





2019 Wastewater Management Plan

Northeast Regional Basin

0 0.1 0.2 Mile

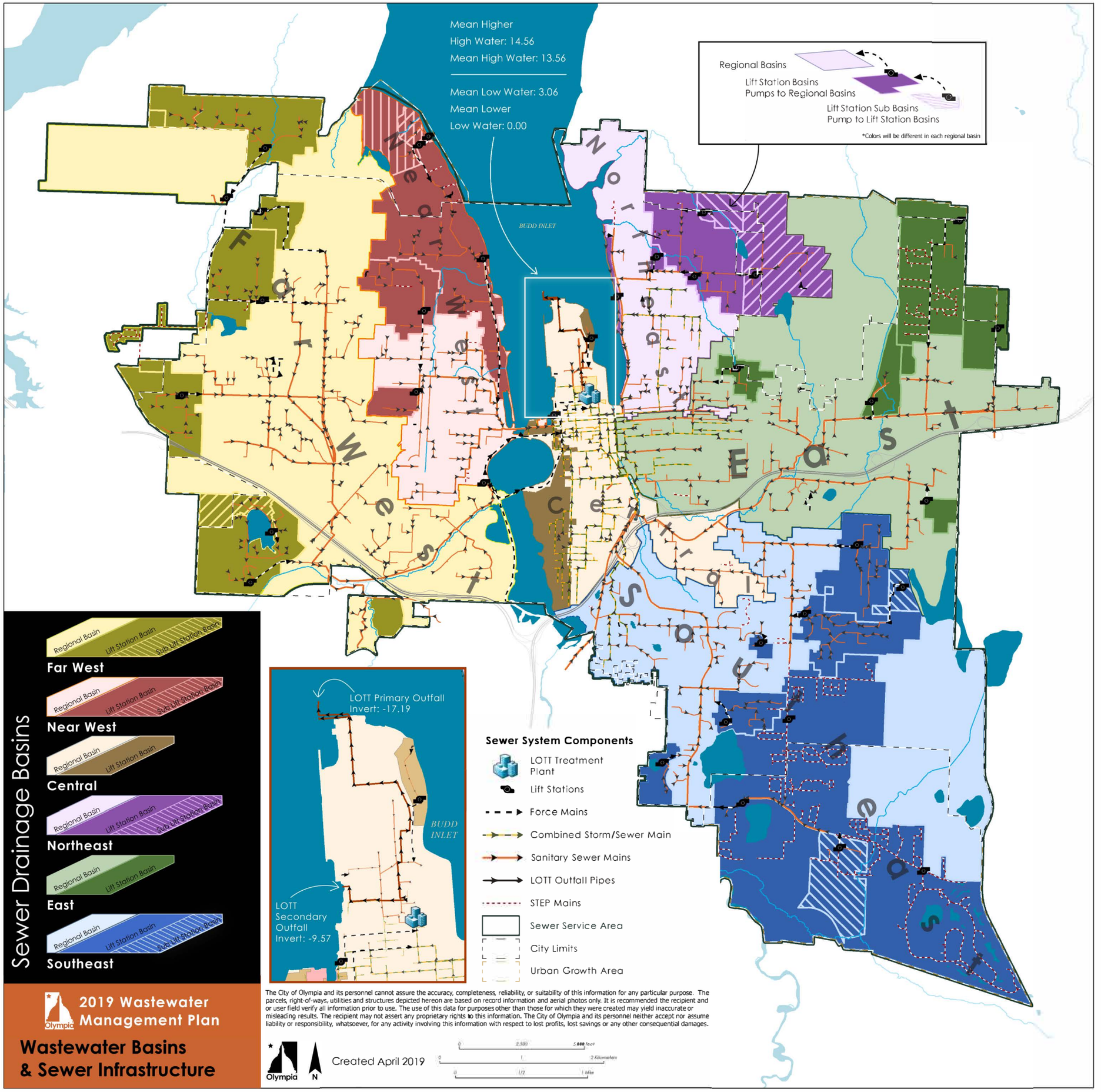
Created April 2019

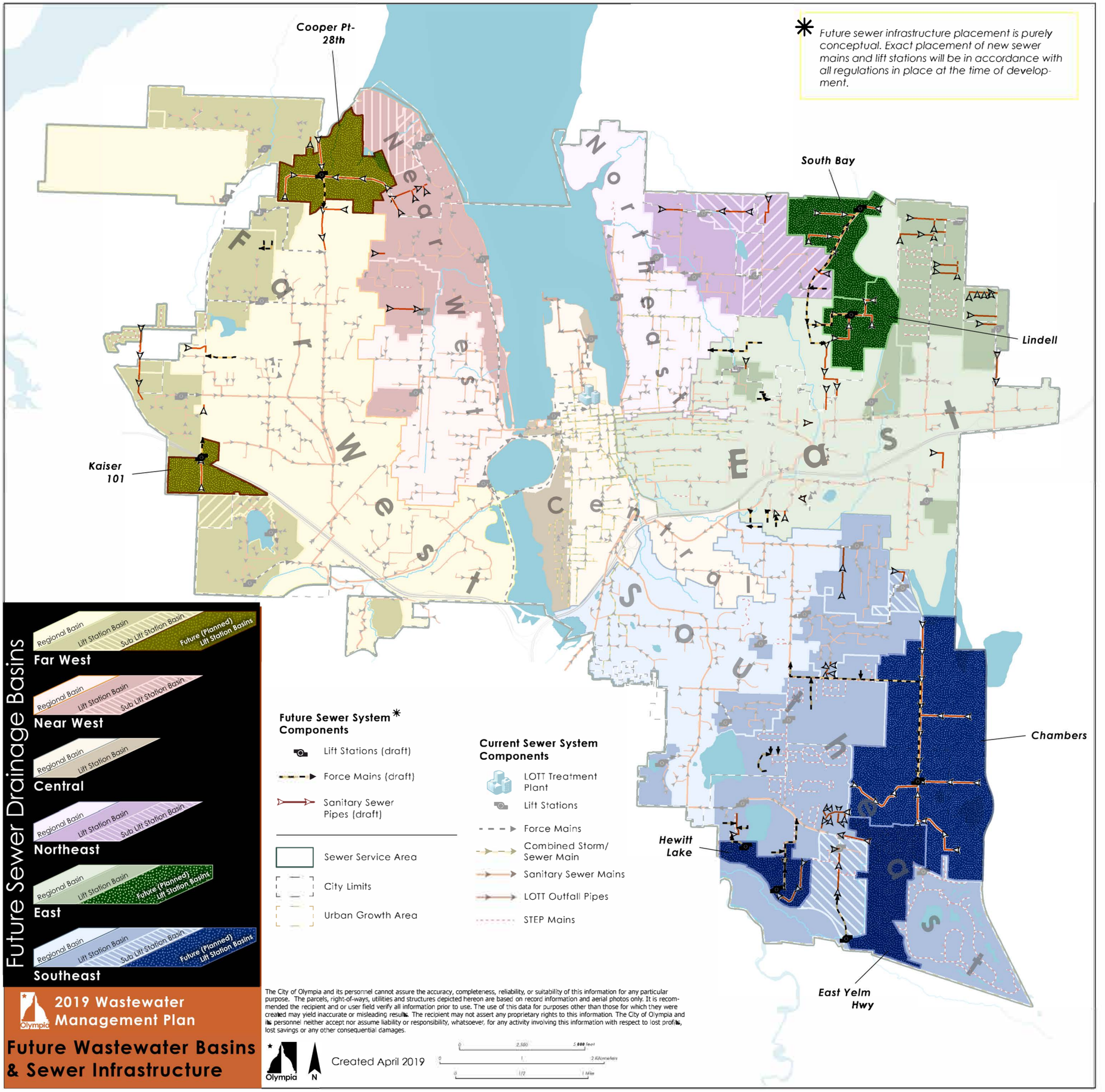
Boundaries

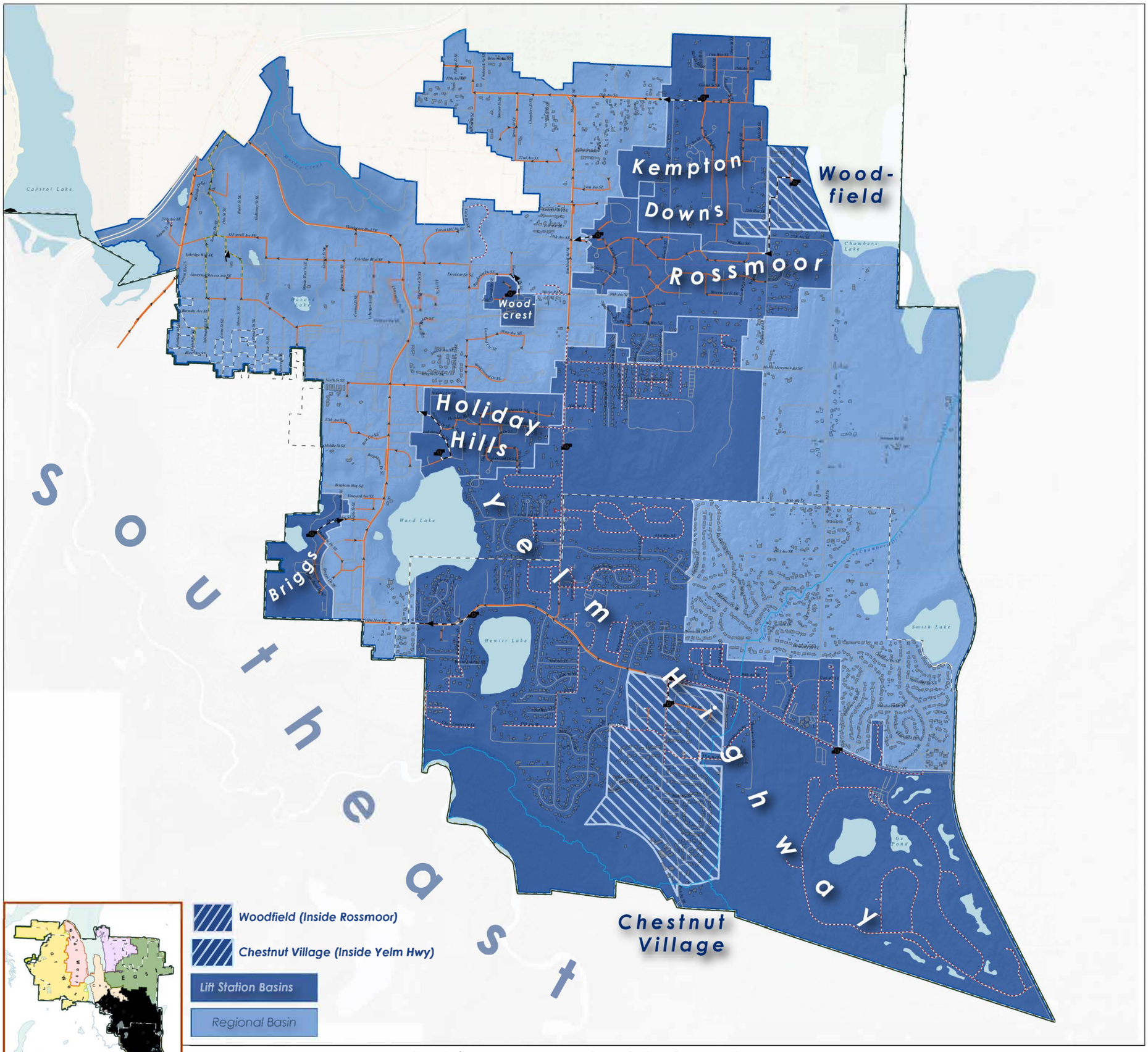
- Sewer Service Area
- City Limits
- Urban Growth Area

Sewer System Components

- LOTT Treatment Plant
- Lift Stations
- Structures on Septic Systems
- Force Mains
- Combined Storm/Sewer Main
- Sanitary Sewer Mains
- LOTT Outfall Pipes
- STEP Mains
- Streams



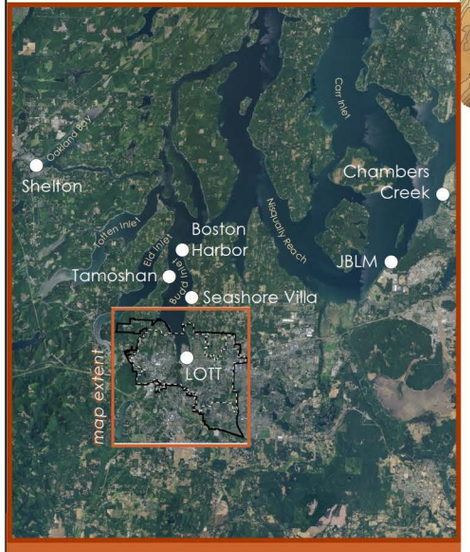



Kempton Downs
Wood-field
Rossmoor
Wood-crest
Holiday Hills
Briggs
Yelm Highway
Chestnut Village
Southeast
Capitol Lake
Ward Lake
Hewitt Lake
Chambers Lake
Smith Lake
Woodfield (Inside Rossmoor)
Chestnut Village (Inside Yelm Hwy)
Lift Station Basins
Regional Basin
0
0.175
0.35
Mile
Created April 2019
The City of Olympia and its personnel cannot assure the accuracy, completeness, reliability, or suitability of this information for any particular purpose. The parcels, right-of-ways, utilities and structures depicted hereon are based on record information and aerial photos only. It is recommended the recipient and or user field verify all information prior to use. The use of this data for purposes other than those for which they were created may yield inaccurate or misleading results. The recipient may not assert any proprietary rights to this information. The City of Olympia and its personnel neither accept nor assume liability or responsibility, whatsoever, for any activity involving this information with respect to lost profits, lost savings or any other consequential damages.
Boundaries
Sewer Service Area
City Limits
Urban Growth Area
Sewer System Components
LOTT Treatment Plant
Lift Stations
Structures on Septic Systems
Force Mains
Combined Storm/Sewer Main
Sanitary Sewer Mains
LOTT Outfall Pipes
STEP Mains
Streams
2019 Wastewater Management Plan
Southeast Regional Basin

Created April 2019

Budd Inlet
Eld Inlet
Green Cove Creek
Butler Creek
Schneider Creek
Ellis Creek
Mission Creek
Woodard Creek
Indian Creek
Setchfield Lake
Bigelow Lake
Lake Louise
Capitol Lake
Miller Lake
Ken Lake
Black Hills
Black Lake Ditch
Percival Creek
Moxlie Creek
Tumwater Hill
Hazard Lake
LBA Park
Chambers Lake
Ward Lake
Deschutes River
Chambers Ditch
Hewitt Lake
Smith Lake
Munn Lake
Chambers Creek

Wastewater Facilities within 20 Miles of Plan Area



Lakes (Color Dependent on Elevation)
Sewer Service Area
UGA
City Limits
10' Contours
Streams
Streams (in culverts)

Highest : 770' NAVD 88
420' Tumwater Hill
250'
200' Chambers Lake
150'
130' Ward Lake
100'
50'
10' Capitol Lake
Lowest : 0.41' NAVD 88
Higher
Lower

0 2,500 5,000 Feet
0 1 2 Kilometers
0 1/2 1 Mile

2019 Wastewater Management Plan

Topographic Map

Wastewater Management Plan Update

Navigation

Wastewater

- Septic to Sewer
- STEP Information

Draft 2019 Wastewater Management Plan now available.

The City has updated its 2013 Wastewater Management Plan. A wastewater management plan contains information on the existing condition of a wastewater utility, including known problems and anticipated needs for future facilities.

A public comment period on the Draft Plan closed on October 31, 2019. The changes that will be made at document finalization, to address the comments received during the public comment period, can be reviewed here.

Council review and approval will occur in early 2020.

Draft 2019 Wastewater Management Plan

Draft Plan Appendices

Why Update the Plan?

The work of the Olympia Wastewater Utility is guided by a master plan approved in 2013. Under regulation, a wastewater (or sewer) utility is required to have a general sewer plan at the time the utility is first established. Thereafter, plan updates are not a regulatory requirement.

The Utility updated its 2013 Wastewater Management Plan because it serves as a valuable tool to facilitate efficient and effective management of Utility programs and projects. As the 2013 Wastewater Management Plan serves as an excellent starting point, only a minor update occurred. Key changes included:

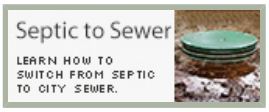
- Elimination of 2013 Plan strategies the Wastewater Utility has accomplished and incorporation of new strategies primarily focusing on addressing climate change and adapting infrastructure to accommodate sea level rise.
- Revision of the challenges facing the Wastewater Utility to address current conditions.
- Incorporation of a revised system capacity analysis, including the addition of capital projects to address identified capacity limitations.
- Incorporation of a revised financial analysis.

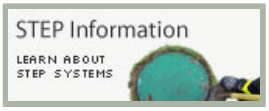
Key Challenges to be Addressed

The Utility faces numerous challenges in providing wastewater service to its service area. The following eight key challenges are addressed in the Draft 2019 Wastewater Management Plan

Aging Infrastructure

Aging and maintenance-intensive infrastructure poses risks to public health and water quality. Understanding the condition of the Utility's infrastructure informs replacement and





City Calendar

2/20 - 5:00 p.m.
General Government Committee (Special Meeting)

2/20 - 6:00 p.m.
Parks & Recreation Advisory Committee

2/22 - 1:30 p.m.
Event Honoring Black History Month

2/24 - 5:30 p.m.
City of Olympia s Brownfields Initiative Community Meeting

2/24 - 6:30 p.m.
Hearing Examiner

View full calendar...

City Updates

OLYMPIA'S NEXT CITY MANAGER The City is seeking a dynamic, seasoned executive to serve as Olympia's next City Manager. Take a short (two question) survey to tell us what qualities, skills and abilities you think are necessary for success in the position. Survey closes Monday, March 9, 2020. Take the survey...

2020 TRAFFIC WRAP VOTE Tell us which designs by local artists you would like to see decorate 10 more of our old, ugly traffic control boxes. Vote now at Engage Olympia!

HELP IDENTIFY ADA BARRIERS IN OLYMPIA We are developing an ADA (Americans with Disabilities Act) Transition Plan and need your help identifying barriers related to: City services, programs & activities; City buildings & facilities; and Public right-of-way (streets & sidewalks). Share your input at Engage Olympia...

2020 CENSUS The 2020 Census is fast approaching. Learn everything you need to know about why it matters and how to be counted at trpc.org/946/Census .

THURSTON COUNTY

maintenance decisions and is referred to as "asset management". Effective operations and maintenance is critical to the wastewater system.

STEP systems

STEP challenge topics include: maintenance – including lifecycle costs of major components, odor control and corrosion control.

Inflow and Infiltration

Inflow & Infiltration (I & I) from groundwater and stormwater can unnecessarily consume pipe and treatment plant capacity. To keep pipe capacities from being exceeded, priority areas for addressing I & I should be identified.

Onsite Sewage Systems

Although progress has been made on the removal of onsite sewage systems located within city limits and the urban growth area in recent years, onsite sewage systems in urban areas continue to threaten ground and surface water quality and public health, particularly in northeast and southeast Olympia.

Extending Sewers to New Development

Planned development in Olympia and its Urban Growth Area requires planning for and financing of sewer extensions cost-effectively and equitably.

Climate Change

Changing climate in the Pacific Northwest likely will result in increased rainfall and rising sea levels. Increased rainfall and associated flooding could result in increased flows into the combined storm/sewer system. Approximately five sewer pump stations could be impacted by rising seas.

Early adaptation to higher sea levels may allow for continued reliability and lowest reasonable cost. Efforts made by the wastewater utility such as reducing its energy use and promoting water conservation activities could assist the community in its efforts to mitigate climate change.

Fats, Oils and Grease

Significant utility staff time is spent on tasks associated with fats, oils & grease (FOG), including educating customers on proper disposal methods, responding to sewer system blockages and coordinating with LOTT. The Utility's current FOG cleaning program is focused on grease cleaning.

To ensure it continues to be addressed, current staffing, anticipated staffing needs and potential opportunities to partner with the Stormwater Utility should be analyzed and identified.

Equitable and Predictable Rates and Fees

Creating predictability for customers and developers is difficult in a complex environment. The plan will address the balance between ongoing utility needs and keeping rates as low as possible.

Proposed Wastewater Management Plan Goals, Objectives and Strategies

Working with the Utility Advisory Committee, Wastewater Utility staff has identified the six goals the Wastewater Utility hopes to achieve during the next 20 years. For each goal, one or more objectives are recommended. Corresponding proposed strategies follow each objective.

Review the proposed 2019 Wastewater Plan goals, objectives and strategies.

Significant differences between the 2013 and 2019 Wastewater Plan goals, objectives and strategies include:

- Replacement of the 2013 Wastewater Plan's energy goal, with a broader climate change goal.
- Addition of an objective to adapt wastewater infrastructure to changes in sea levels (and associated strategies.)
- Addition of an objective to adapt wastewater infrastructure to accommodate changes in precipitation (and associated strategies.)

For purposes of the 2019 Wastewater Plan, Goal, Objective and Strategy have the following meanings:

Goal: Broad, qualitative statements of what the Wastewater Utility hopes to achieve.

Objective: Specific, measurable statements of what will be done to achieve the goals within a particular time frame.

Strategy: General approaches or methods for achieving objectives and resolving specific

issues. Strategies speak to the question, "How will we go about accomplishing our objectives?"

Get Involved

Sign up for the Water Resources Utilities E-newsletter to receive project updates and watch this webpage for opportunities to get involved.

Comments or questions can be sent to sclark@ci.olympia.wa.us.

back to top...

City of Olympia, Washington
PO Box 1967
Olympia, WA 98507-1967

REVISIONS TO ADDRESS PUBLIC AND STAKEHOLDER COMMENTS November 8, 2019		
Location	**Proposed Revision**	**Reason for Revision**
Beginning of the Plan	Addition of a table of contents at the beginning of the document at finalization.	To address comment received from LOTT.
Executive Summary, Page 7	Revise project names in Table 1.3 as follows: Rossmoor Upgrade Design Rossmoor Upgrade Construction	To correct spelling and to address public comment received from R.Wilson.
Chapter 2, Page 6	Commas will be added to the figures in Table 2.3 at finalization.	To address public comment received from R.Wilson.
Chapter 3, Page 9	Revise Section 3.5, paragraph three as follows: ~~Coordination with neighboring jurisdictions will grow increasingly important as LOTT decentralizes wastewater treatment into satellite reclamation facilities.~~	To address request received from LOTT.
Chapter 3, Page 10	Revise paragraph three, fourth sentence as follows: This high quality water is reused for a variety of non-potable purpose~~d~~s	To correct grammar and to address comment received from LOTT.
Chapter 3, Page 10	Revise paragraph 5 as follows: ~~In many cases, the City of Olympia's neighborhood sewer systems connect directly into the LOTT interceptors. Because of these connections, problems in the City's wastewater system or in LOTT's LOTT pipes have the potential to cause problems for Olympia customers.~~	To address public comment received from R.Wilson (statement not necessary).
Chapter 3, Page 11	Revise Table 3.4 at finalization to: 1) remove final row shading, and 2) shade rows containing facility titles (Budd Inlet Treatment Plant, Martin Way Reclaimed Water Plant).	To simplify table for the reader and to address comment received from LOTT.
Chapter 4, Page 11	Revise paragraph seven, third sentence as follows: OSS owners have taken responsibility for the operation and maintenance of their systems – as evidenced by the 2100+ homeowners that are certified to inspect their OSS ~~homeowner inspectors~~ and an on-going compliance rate of about 87 percent.	Incorrect wording and to address public comment received from R.Wilson.