



City of Arlington *2019 Amendment to the* 2015 Comprehensive Water System Plan



Prepared by:
City of Arlington

Water System ID 02950K

With assistance from:



and



January 2016
Amended October 2017
Amended December 2019



City of Arlington *2019 Amendment to the* 2015 Comprehensive Water System Plan



Prepared by:
City of Arlington

Water System ID 02950K

With assistance from:



and



January 2016
Amended October 2017
Amended December 2019

Cover photos:

Foreground photo shows the Stillaguamish River and the Northern Pacific railroad trestle at confluence of the North and South Forks at Arlington. The River is one of three water sources used by the City of Arlington and can produce more than 90 percent of its annual water supply. Background photo shows the Pacific Keystone filter trains within the Water Treatment Plant. Water from riverbank wells is filtered through up to three trains with filtration media consisting of sand and anthracite. The WTP can treat 1700 gpm, or more than 2.4 MGD.

Recommended citations:

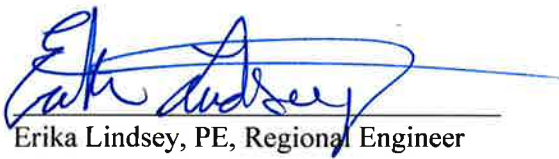
City of Arlington. 2019. 2019 Amendment to the 2015 Comprehensive Water System Plan. Released December 2019..

City of Arlington. 2017. 2017 Amendment to the 2015 Comprehensive Water System Plan. Released October 2017. Prepared with assistance from RH2 Engineering, Inc. and FCS Group Inc.

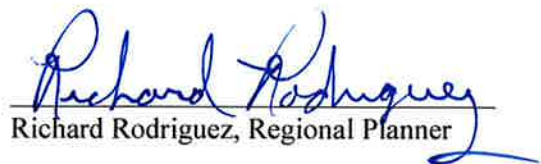
City of Arlington. 2016. 2015 Comprehensive Water System Plan, Final. Released January 2016. Prepared with assistance from RH2 Engineering, Inc. and FCS Group Inc.

Approvals

Washington State Department of Health Office of Drinking Water

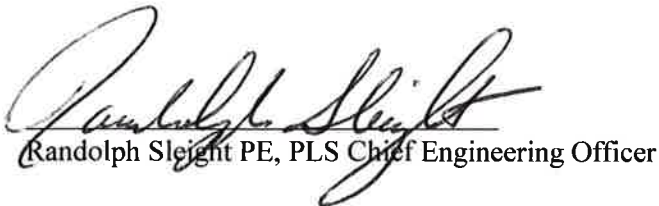


Erika Lindsey, PE, Regional Engineer



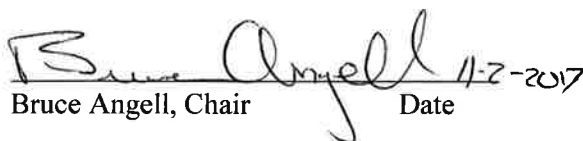
Richard Rodriguez, Regional Planner

Snohomish County Department of Planning and Development Services



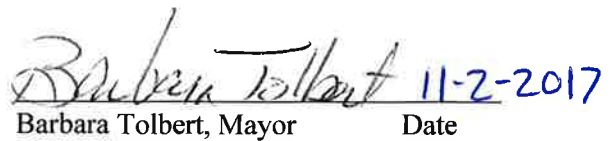
Randolph Sleight PE, PLS Chief Engineering Officer

City of Arlington Planning Commission



Bruce Angell, Chair 11-2-2017
Date

City of Arlington City Council

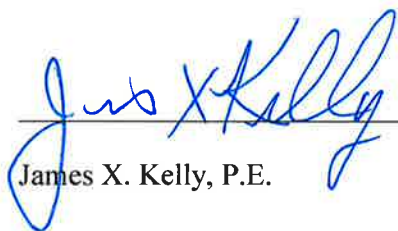


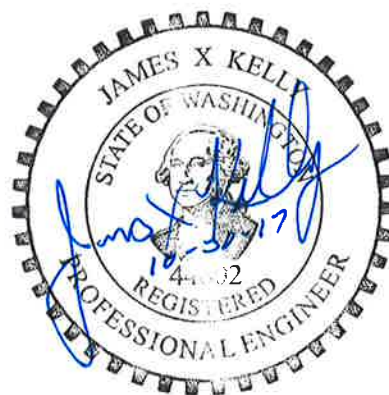
Barbara Tolbert, Mayor 11-2-2017
Date

This page blank for formatting and duplex printing.

City of Arlington Certification

Chapters 1, 2, 3, 4, 5, 6, and 8 of the 2015 Comprehensive Water System Plan (WSP), and the 2017 Amendment to the WSP, were prepared by City of Arlington staff under the direction of the following registered professional engineer. Chapter 10 was prepared for the 2015 WSP by FCS Group under the direction of the same, and City of Arlington staff made minor modifications to Chapter 10 in the 2017 Amendment. City of Arlington staff received support from RH2 Engineering on Chapter 4 in both the 2015 WSP and the 2017 Amendment.

 10-30-17
James X. Kelly, P.E.



This page blank for formatting and duplex printing.

RH2 Engineering Certification

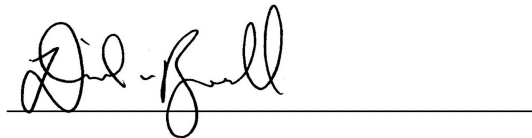
Chapters 4, 7, and 9 of the 2017 City of Arlington Water System Plan Amendment were prepared under the direction of the following registered professional engineers.



Richard L. Ballard, P.E.



08/29/2017



Dan Burwell, P.E.



08/29/2017



Ryan Withers, P.E.



08/29/2017

This page blank for formatting and duplex printing.

Table of Contents

Table of Contents--Expanded.....	xi
Reviser's Note Regarding The 2019 Amendment.....	xxvii
Reviser's Note Regarding The 2017 Amendment.....	xxviii
EXECUTIVE SUMMARY	1
ES.1 Purpose Of The Plan	1
ES.2 Changes Since The Last Comprehensive Water System Plan	2
ES.3 What Has Not Changed Since The Last Comprehensive Water System Plan	4
ES.4 Summary Of Key Elements	5
ES.5 Proposed Water System Improvements And Financing Plan	12
1 INTRODUCTION	1
1.1 Water System Ownership And Management	1
1.2 Overview Of Existing System	1
1.3 Authorization And Purpose (Amended).....	3
1.4 Summary Of Plan Contents.....	4
1.5 Definition Of Terms.....	4
1.6 List Of Abbreviations	6
2 WATER SYSTEM DESCRIPTION	1
2.1 Introduction	1
2.2 Water Service Area (Wsa).....	1
2.3 Water Service Agreements.....	6
2.4 Satellite System Management.....	7
2.5 Inventory Of Existing Water Facilities.....	8
2.6 Adjacent Water Systems	22
3 LAND USE AND POPULATION	1
3.1 Introduction	1
3.2 Compatibility With Other Plans.....	2
3.3 Land Use	7
3.4 Population.....	9
3.5 Population Placement.....	11
4 WATER DEMANDS.....	1
4.1 Introduction	1
4.2 Current Population And Service Connections	2
4.3 Existing Water Demands	2
4.4 Future Water Demands	18
5 POLICIES AND DESIGN CRITERIA	1
5.1 Introduction	1
5.2 Supply Policies	2
5.3 Customer Service Policies.....	5
5.4 Facility Policies	8
5.5 Financial Policies.....	14
5.6 Organizational Policies	15

2017 Amendment to the 2015 Comprehensive WSP

6	WATER SOURCE AND QUALITY.....	1
6.1	Introduction	1
6.2	Existing Water Sources And Treatment	1
6.3	Water Supply, Water Rights, And Water Purchases	2
6.4	Long-Term Water Supply Planning	18
6.5	Drinking Water Regulations	20
6.6	Source Water Quality	34
6.7	Distribution System Water Quality	36
7	WATER SYSTEM ANALYSIS.....	1
7.1	Introduction	1
7.2	Pressure Zones (Amended)	1
7.3	Source Capacity Evaluation	3
7.4	Water Supply Facilities Evaluation	5
7.5	Storage Facilities	12
7.6	Distribution And Transmission System	16
7.7	Pressure Reducing Stations	22
7.8	Telemetry And Supervisory Control System	23
7.9	System Capacity.....	23
8	OPERATIONS AND MAINTENANCE.....	1
8.1	Introduction	1
8.2	Normal Operations.....	1
8.3	Emergency Operations	13
8.4	Preventive Maintenance	18
8.5	Staffing.....	22
9	WATER SYSTEM IMPROVEMENTS.....	1
9.1	Introduction	1
9.2	Water System Improvements Since Last The 2011 Water System Plan (Amended)	2
9.3	Water Main Improvements (Amended).....	3
9.4	Pressure Zone Improvements	7
9.5	Facility Improvements.....	7
9.6	Miscellaneous Improvements	10
9.7	Developer-Funded Improvements	11
9.8	Estimating Costs Of Improvements	14
9.9	Prioritizing Improvements	15
9.10	Schedule Of Improvements.....	17
10	FINANCIAL PLAN.....	1
10.1	Introduction.....	1
10.2	Past Financial Performance	1
10.3	Available Capital Resources	4
10.4	Financial Plan Framework.....	11
10.5	Financial Plan Results.....	14
10.6	Current And Projected Rates	18
10.7	Affordability.....	20
10.8	Conclusion.....	21

Table of Contents--Expanded

TABLE OF CONTENTS	ix
TABLE OF CONTENTS--EXPANDED.....	xi
LIST OF TABLES.....	xviii
LIST OF CHARTS.....	xxi
LIST OF FIGURES (MAPS)	xxi
APPENDICES	xxii
REVISER'S NOTE REGARDING THE 2019 AMENDMENT	xxvii
REVISER'S NOTE REGARDING THE 2017 AMENDMENT	xxviii

EXECUTIVE SUMMARY 1

ES.1 PURPOSE OF THE PLAN.....	1
ES.2 CHANGES SINCE THE LAST COMPREHENSIVE WATER SYSTEM PLAN..	2
<i>ES.2.1 Water Rights and Water Law</i>	<i>2</i>
<i>ES.2.2 Planning Efforts.....</i>	<i>2</i>
<i>ES.2.3 Physical Infrastructure Changes</i>	<i>2</i>
<i>ES.2.4 Limitations with Aging Physical Infrastructure</i>	<i>3</i>
<i>ES.2.5 Integrated Water Resource Management Actions</i>	<i>3</i>
<i>ES.2.6 Emergency Response and Climate Change Experience</i>	<i>3</i>
<i>ES.2.7 Changing Supply and Demand Scenario.....</i>	<i>4</i>
<i>ES.2.8 Water Quality Observations</i>	<i>4</i>
ES.3 WHAT HAS NOT CHANGED SINCE THE LAST COMPREHENSIVE WATER SYSTEM PLAN	4
ES.4 SUMMARY OF KEY ELEMENTS.....	5
<i>ES.4.1 Customers within the Water Service Area (WSA).....</i>	<i>5</i>
<i>ES.4.2 Infrastructure.....</i>	<i>6</i>
<i>ES.4.3 Historic and Forecast Demand.....</i>	<i>7</i>
<i>ES.4.4 Water Use Efficiency.....</i>	<i>9</i>
<i>ES.4.5 Future Water Demands and Water Supply.....</i>	<i>10</i>
<i>ES.4.6 Staffing for Operations and Maintenance</i>	<i>11</i>
<i>ES.4.7 Water System Evaluation.....</i>	<i>11</i>
ES.5 PROPOSED WATER SYSTEM IMPROVEMENTS AND FINANCING PLAN	12

1 INTRODUCTION..... 1

1.1 WATER SYSTEM OWNERSHIP AND MANAGEMENT	1
1.2 OVERVIEW OF EXISTING SYSTEM	1
1.3 AUTHORIZATION AND PURPOSE (AMENDED)	3
1.4 SUMMARY OF PLAN CONTENTS	4

2017 Amendment to the 2015 Comprehensive WSP

1.5	DEFINITION OF TERMS	4
1.6	LIST OF ABBREVIATIONS	6
2	WATER SYSTEM DESCRIPTION	1
2.1	INTRODUCTION	1
2.2	WATER SERVICE AREA (WSA)	1
2.2.1	<i>History</i>	1
2.2.2	<i>Geology</i>	1
2.2.3	<i>Topography</i>	4
2.2.4	<i>Water Service Area (WSA)</i>	5
2.3	WATER SERVICE AGREEMENTS	6
2.3.1	<i>Critical Water Supply Service Area Agreement</i>	6
2.3.2	<i>Snohomish County PUD No. 1 Wholesale Water Agreement</i>	6
2.3.3	<i>Former Interlocal Agreements with City of Marysville Utilities</i>	6
2.4	SATELLITE SYSTEM MANAGEMENT	7
2.5	INVENTORY OF EXISTING WATER FACILITIES	8
2.5.1	<i>Pressure Zones</i>	8
2.5.2	<i>Supply Facilities</i>	9
2.5.3	<i>Pump Station Facilities (Amended)</i>	14
2.5.4	<i>Storage Facilities (Amended)</i>	15
2.5.5	<i>Distribution and Transmission System</i>	16
2.5.6	<i>Pressure Reducing Stations</i>	18
2.5.7	<i>Water System Interties</i>	19
2.5.8	<i>Telemetry and Supervisory Control System</i>	20
2.5.9	<i>Water System Operation and Control</i>	21
2.6	ADJACENT WATER SYSTEMS	22
2.6.1	<i>Large, Expanding Group A Community Water Systems</i>	22
2.6.2	<i>Other Non-expanding Group A Community Water Systems</i>	23
2.6.3	<i>Other Water Systems</i>	26
3	LAND USE AND POPULATION	1
3.1	INTRODUCTION	1
3.2	COMPATIBILITY WITH OTHER PLANS	2
3.2.1	<i>Introduction</i>	2
3.2.2	<i>Growth Management Act</i>	2
3.2.3	<i>City of Arlington GMA Comprehensive Plan</i>	4
3.2.4	<i>Snohomish County GMA Comprehensive Plan</i>	4
3.2.5	<i>Snohomish County Countywide Planning Policies (CPPs)</i>	5
3.2.6	<i>North Snohomish County Coordinated Water System Plan</i>	6
3.3	LAND USE	7
3.3.1	<i>City of Arlington</i>	7
3.3.2	<i>City of Arlington Urban Growth Area (UGA)</i>	7
3.3.3	<i>Snohomish County</i>	8

Table of Contents

3.4	POPULATION	9
3.4.1	<i>Household Trends</i>	9
3.4.2	<i>Existing and Future Population</i>	10
3.5	POPULATION PLACEMENT.....	11
3.5.1	<i>By Pressure Zone</i>	11
3.5.2	<i>By Growth Centers</i>	21
4	WATER DEMANDS.....	1
4.1	INTRODUCTION	1
4.1.1	<i>Certificate of Water Availability</i>	2
4.2	CURRENT POPULATION AND SERVICE CONNECTIONS	2
4.2.1	<i>Residential Population Served (Amended)</i>	2
4.3	EXISTING WATER DEMANDS	2
4.3.1	<i>Water Use Classifications</i>	2
4.3.2	<i>Water Consumption</i>	3
4.3.3	<i>Water Supply (Amended)</i>	4
4.4	FUTURE WATER DEMANDS	18
4.4.1	<i>Basis for Projecting Demands (Amended)</i>	18
4.4.2	<i>Demand Forecasts and Conservation (Amended)</i>	20
5	POLICIES AND DESIGN CRITERIA	1
5.1	INTRODUCTION	1
5.2	SUPPLY POLICIES	2
5.2.1	<i>Quality Protection</i>	2
5.2.2	<i>Cross-connection Control</i>	2
5.2.3	<i>Quantity</i>	3
5.2.4	<i>Reliability and Sustainability</i>	3
5.2.5	<i>Fire Flow</i>	3
5.2.6	<i>Water Use Efficiency</i>	4
5.2.7	<i>Regional Participation</i>	4
5.2.8	<i>Integrated Water Resources Management Program</i>	4
5.2.9	<i>Environmental Responsibility</i>	4
5.3	CUSTOMER SERVICE POLICIES	5
5.3.1	<i>Water Service and Connection</i>	5
5.3.2	<i>Annexations</i>	7
5.3.3	<i>Temporary Services</i>	7
5.3.4	<i>Emergency Service</i>	7
5.3.5	<i>Planning Boundaries</i>	7
5.3.6	<i>Transfer of Development Rights</i>	7
5.3.7	<i>Satellite System Management</i>	7
5.4	FACILITY POLICIES	8
5.4.1	<i>Minimum Standards</i>	8
5.4.2	<i>Pressure</i>	8

2017 Amendment to the 2015 Comprehensive WSP

5.4.3	Velocities	8
5.4.4	Storage.....	8
5.4.5	Transmission and Distribution.....	9
5.4.6	Supply and Booster Pump Stations	11
5.4.7	Pressure Reducing Stations	12
5.4.8	Water Treatment Plant.....	12
5.4.9	Control.....	13
5.4.10	Maintenance.....	13
5.4.11	Joint Use	13
5.5	FINANCIAL POLICIES	14
5.5.1	General	14
5.5.2	Connection Charges.....	15
5.6	ORGANIZATIONAL POLICIES	15
5.6.1	Staffing.....	15
5.6.2	Relationship with Other Departments	15

6 WATER SOURCE AND QUALITY..... 1

6.1	INTRODUCTION.....	1
6.2	EXISTING WATER SOURCES AND TREATMENT.....	1
6.2.1	Water Sources.....	1
6.2.2	Water Treatment.....	1
6.3	WATER SUPPLY, WATER RIGHTS, AND WATER PURCHASES	2
6.3.1	Overview	2
6.3.2	Water Rights Portfolio.....	5
6.3.3	Existing Water Rights for Potable Supply	5
6.3.4	Pending Water Rights for Potable Supply.....	10
6.3.5	Existing Water Rights for Other Municipal Supply Purposes.....	12
6.3.6	Wholesale Water Purchases	14
6.3.7	Water Supply Evaluation	15
6.4	LONG-TERM WATER SUPPLY PLANNING	18
6.4.1	Beyond the Projections (Amended)	18
6.4.2	Identification of Alternative Sources.....	19
6.4.3	Water Rights.....	19
6.4.4	Integrated Water Resources Management	20
6.5	DRINKING WATER REGULATIONS	20
6.5.1	Overview	20
6.5.2	Existing Regulations	21
6.5.3	Future Regulations	31
6.6	SOURCE WATER QUALITY.....	34
6.6.1	Drinking Water Standards.....	34
6.6.2	Source Monitoring Requirements and Waivers.....	34
6.6.3	Source Monitoring Results.....	35
6.7	DISTRIBUTION SYSTEM WATER QUALITY	36

6.7.1	Monitoring Requirements and Results	36
7	WATER SYSTEM ANALYSIS	1
7.1	INTRODUCTION	1
7.2	PRESSURE ZONES (AMENDED)	1
7.3	SOURCE CAPACITY EVALUATION.....	3
7.3.1	Analysis Criteria.....	3
7.3.2	Source Capacity Analysis Results.....	3
7.4	WATER SUPPLY FACILITIES EVALUATION.....	5
7.4.1	Analysis Criteria.....	6
7.4.2	Supply Analysis Results (Amended)	6
7.4.3	Facility Deficiencies (Amended)	11
7.5	STORAGE FACILITIES	12
7.5.1	Analysis Criteria (Amended).....	12
7.5.2	Storage Analyses Results (Amended).....	14
7.5.3	Facility Deficiencies (Amended)	15
7.6	DISTRIBUTION AND TRANSMISSION SYSTEM.....	16
7.6.1	Analysis Criteria.....	16
7.6.2	Hydraulic Model (Amended).....	17
7.6.3	Hydraulic Analyses Results (Amended)	19
7.6.4	Other Deficiencies.....	22
7.7	PRESSURE REDUCING STATIONS.....	22
7.7.1	Evaluation and Deficiencies	22
7.8	TELEMETRY AND SUPERVISORY CONTROL SYSTEM.....	23
7.8.1	Evaluation and Deficiencies (Amended).....	23
7.9	SYSTEM CAPACITY	23
7.9.1	Analysis Criteria.....	23
7.9.2	Existing Capacity Analysis Results.....	24
7.9.3	Future Capacity Analysis Results (Amended)	25
8	OPERATIONS AND MAINTENANCE.....	1
8.1	INTRODUCTION	1
8.2	NORMAL OPERATIONS.....	1
8.2.1	Organizational Structure (Amended)	1
8.2.2	Personnel Responsibilities (Amended).....	3
8.2.3	Available Equipment	5
8.2.4	Service, Equipment and Supply Vendors	5
8.2.5	Routine Operations.....	5
8.2.6	Continuity of Service	5
8.2.7	Routine Water Quality Sampling	6
8.2.8	Cross-Connection Control (CCC).....	6
8.2.9	Backwash Waste Discharge to Wetland.....	8
8.2.10	Recordkeeping and Reporting.....	8

2017 Amendment to the 2015 Comprehensive WSP

8.2.11	Operations and Maintenance Records (Amended)	10
8.2.12	Safety Procedures and Equipment	11
8.3	EMERGENCY OPERATIONS	13
8.3.1	Capabilities (Amended)	13
8.3.2	Emergency Response Plan and Vulnerability Assessment	16
8.3.3	Public Notification (Amended)	16
8.4	PREVENTIVE MAINTENANCE	18
8.5	STAFFING	22
8.5.1	Current Staff	22
8.5.2	Current Staff Required	23

9 WATER SYSTEM IMPROVEMENTS..... 1

9.1	INTRODUCTION	1
9.2	WATER SYSTEM IMPROVEMENTS SINCE LAST THE 2011 WATER SYSTEM PLAN (AMENDED)	2
9.3	WATER MAIN IMPROVEMENTS (AMENDED)	3
9.3.1	Future Water Main Extensions and Replacements	3
9.3.2	CIP WM1: Annual Water Main Replacement Program	4
9.3.3	CIP WM2: 12-inch Water Main in 204th Street NE for North Island Crossing	5
9.3.4	CIP WM3: 198th Place NE/Cemetery Road Water Main	5
9.3.5	CIP WM5: South of 172nd Area MIC Water Main	6
9.3.6	CIP WM6: Island Crossing Utility Local Improvement District	6
9.4	PRESSURE ZONE IMPROVEMENTS	7
9.4.1	CIP PZ1: Conversion of 710 Zone to 560 Zone (107th Avenue NE)	7
9.4.2	CIP PZ2: Conversion of 710 Zone to 615 Zone	7
9.4.3	CIP PZ3: Conversion of 540 Zone to 615 and 520 Zone	7
9.5	FACILITY IMPROVEMENTS	7
9.5.1	CIP F1: Demolish Old Water Treatment Plant	8
9.5.2	CIP F2: Source of Supply Study	8
9.5.3	CIP F3: Demolish Burn Road Reservoir	8
9.5.4	CIP F4: New Supply Well No. 1 (Replace Airport Well)	8
9.5.5	CIP F5: New Supply Well No. 2	9
9.5.6	CIP F6: Future 1.0 Million Gallon (MG) Reservoir	9
9.5.7	CIP F7: Gleneagle Reservoir Roof Replacement	10
9.5.8	CIP F8: 520 Reservoir Improvements	10
9.5.9	CIP F9: Replacement Clearwell Pumps	10
9.6	MISCELLANEOUS IMPROVEMENTS	10
9.6.1	CIP M1: Drive-by Read Meter Conversion	10
9.6.2	CIP M2: Source Water Protection Program	11
9.6.3	CIP M3: WSP Update	11
9.7	DEVELOPER-FUNDED IMPROVEMENTS	11
9.7.1	CIP DF1: 12-inch Water Main Loop from 59th Avenue NE to 66th Avenue NE	11
9.7.2	CIP DF2: 12-inch Water Main Replacement in 211th Place NE	12

Table of Contents

9.7.3	CIP DF3: Jensen Farm High Density Residential 12-inch Water Main	12
9.7.4	CIP DF4: 59th Avenue and Cemetery Road Industrial Improvements	12
9.7.5	CIP DF5: 12-inch Water Main in 196th Street NE from Burn Road to Crown Ridge Boulevard	12
9.7.6	CIP DF6: Northwest Airport 12-inch Water Main Loop	12
9.7.7	CIP DF7: North Island Crossing Commercial 12-inch Water Main Loop	12
9.7.8	CIP DF8: Kraetz Road Water Main	13
9.7.9	CIP DF9: 12-inch Water Main in 172nd Street NE from 67th Avenue NE to 71st Avenue NE	13
9.7.10	CIP DF10: 12-inch Water Main in Troon Court from Troon Court Cul-de-sac to 174th Street NE	13
9.7.11	CIP DF11: 615 Zone Water Main East of 89th Avenue NE	13
9.7.12	CIP DF12: 710 Zone Booster Pump Station and Water Main	14
9.8	ESTIMATING COSTS OF IMPROVEMENTS	14
9.9	PRIORITIZING IMPROVEMENTS	15
9.9.1	Water Main Improvements	15
9.9.2	Other Improvements	16
9.10	SCHEDULE OF IMPROVEMENTS	17
9.10.1	Future Project Cost Adjustments	17
10	FINANCIAL PLAN	1
10.1	INTRODUCTION	1
10.2	PAST FINANCIAL PERFORMANCE	1
10.2.1	Summary of Fund Resources and Uses	1
10.2.2	Outstanding Debt Principal	3
10.3	AVAILABLE CAPITAL RESOURCES	4
10.3.1	Internal Utility Resources	4
10.3.2	Government Programs & Resources	6
10.3.3	Public Debt Financing	9
10.3.4	Capital Resource Funding Summary	10
10.4	FINANCIAL PLAN FRAMEWORK	11
10.4.1	Overview	11
10.4.2	Fiscal Policies	12
10.5	FINANCIAL PLAN RESULTS	14
10.5.1	Capital Improvement Program (Amended)	14
10.5.2	Capital Funding Plan (Amended)	15
10.5.3	Financial Forecast	16
10.6	CURRENT AND PROJECTED RATES	18
10.6.1	Current Rates	18
10.6.2	Projected Rates	19
10.7	AFFORDABILITY	20
10.8	CONCLUSION	21

List of Tables

Table 1-1. Water System Ownership Information	1-1
Table 1-2. 2014 Water System Data	1-2
Table 1-3. Abbreviations	1-7
Table 2-1. Well Facilities Summary	2-9
Table 2-2. Master Meter Facilities Summary	2-13
Table 2-3. Booster Pump Station Facilities Summary	2-14
Table 2-4. Storage Facilities Summary	2-15
Table 2-5. Water Main Diameter Inventory	2-16
Table 2-6. Water Main Material Inventory	2-17
Table 2-7. Water Main Installation Year Inventory	2-18
Table 2-8. Pressure Reducing Station Inventory	2-19
Table 3-1. (Amended) Land Use Zoning Allocations by Jurisdiction	3-9
Table 3-2. (Amended) Population Trends and Projections	3-20
Table 3-3. (Amended) Projected Additional Population by Pressure Zone	3-21
Table 3-4. (Amended) Projected Additional Population in 2035 by Development Type	3-21
Table 3-5. (Amended) Growth Center Attributes and Assumptions	3-22
Table 4-1. Average Annual Revenue Consumption and Service Connections	4-5
Table 4-2. 2014 Largest Water Users	4-7
Table 4-3. Historical Water Supply and System Demand	4-8
Table 4-4. Existing Per Capita Demand	4-8
Table 4-5. 2014 Demands by Pressure Zone	4-9
Table 4-6. Distribution System Leakage	4-12
Table 4-7. Equivalent Residential Units (ERUs)	4-13
Table 4-8. Maximum Day and Peak Hour Demands and Peaking Factors	4-17
Table 4-9. General Planning-Level Fire Flow Requirements Used in this WSP	4-18
Table 4-10. Employment Assumptions Affecting Future Water Demand Projections	4-20
Table 4-11. (Amended) Future Water Demand Projections	4-22
Table 4-12. (Amended) Future ERU Projections	4-23
Table 5-1. Regulatory Agencies	5-2
Table 6-1. City of Arlington Comprehensive Water Rights Portfolio ^a	6-7
Table 6-2. Existing Water Rights for Potable Supply	6-9
Table 6-3. Pending Water Rights for Potable Supply	6-11
Table 6-4. Existing Water Rights for Other Municipal Supply Purposes	6-12
Table 6-5. Existing Water Supply Evaluation	6-15
Table 6-6a. Future Water Supply Evaluation Without Conservation	6-16
Table 6-6b. Future Water Supply Evaluation With Conservation	6-17

List of Tables

Table 7-1. Minimum and Maximum Distribution System Static Pressures	7-2
Table 7-2. (Amended) Source Capacity Evaluation	7-4
Table 7-3. 710 Zone Supply Evaluation.....	7-7
Table 7-4. 540 and 615 Zones Supply Evaluation	7-8
Table 7-5. (Amended) 342 Zone Supply Evaluation	7-10
Table 7-6. (Amended) 520 Zone Supply Evaluation	7-11
Table 7-7. (Amended) Existing Storage Evaluation	7-14
Table 7-8. (Amended) Future Storage Projections	7-15
Table 7-9. Hydraulic Analyses Operational Conditions	7-18
Table 7-10. (Amended) Pressure Analysis Summary	7-20
Table 7-11. (Amended) Fire Flow Analysis Summary.....	7-21
Table 7-12. Existing System Capacity Analysis	7-24
Table 7-13. (Amended) 2020 Future System Capacity Analysis, New Supply Well No. 1	7-25
Table 7-14. (Amended) 2024 Future System Capacity Analysis, New Supply Well Nos. 1 and 2	7-26
Table 8-1. Personnel Certification	8-3
Table 8-2. Water Department Equipment and Chemical Inventory	8-6
Table 8-3. Service, Equipment and Supply Vendors List	8-7
Table 8-4. Utility and Agency Contacts.....	8-15
Table 8-5. Time Available Per Year Per Person	8-23
Table 8-6. Current Staff Required.....	8-24
Table 9-1. (Amended) Improvements Completed Since Last Water System Plan	9-2
Table 9-2. (Amended) Modified Improvement Schedule from the Previous Water System Plan	9-4
Table 9-3. Water Main Unit Costs.....	9-15
Table 9-4. Water Main Improvements Priority Ranking Criteria	9-16
Table 9-5. (Amended) Prioritized Annual Water Main Replacement Projects	9-18
Table 9-6. (Amended) Proposed Improvements Implementation Schedule	9-23
Table 10-1. Summary of Historical Fund Resources, Water Utility Fund 401.....	10-2
Table 10-2. Summary of Historical Fund Resources, Water Improvement Fund 405.....	10-3
Table 10-3. Summary of Outstanding Debt	10-3
Table 10-4. (Amended) 10-Year and 20-Year CIP.....	10-15
Table 10-5. (Amended) 20-Year Capital Funding Strategy	10-16
Table 10-6. 10-Year Financial Forecast.....	10-17
Table 10-7. Ending Cash Balance Summary	10-18
Table 10-8. Existing Schedule of Rates.....	10-19
Table 10-9. 10-Year Proposed Rates	10-19
Table 10-10. 10-Year Monthly Bills.....	10-20
Table 10-11. Affordability Test.....	10-20
Table E-1. Water Use Efficiency Goals for the 2014 and 2020 Planning Cycles.....	E-6
Table E-2. Water Consumption and Distribution System Leakage.....	E-9
Table E-3. WUE Program Schedule and Budget	E-21
Attachment E-2. Water Use Efficiency Goals and Results Since 2007	E-25
Table EE-1. Recommended Actions for Reducing Distribution System Losses	E-30

2017 Amendment to the 2015 Comprehensive WSP

Table EE-2. Schedule and Budget of Action Plan Recommendations.....	E-32
Table EE-3. City of Arlington Potable Water Balance.....	E-39
Table F-1. Potential Contaminants in Time of Travel (TOT) Zones	F-8
Table G-1. Cross Connection Control Acronyms.....	G-8
Table G-2. Premises Requiring Mandatory Service Isolation by AG or RPBA.....	G-8
Table G-3. Appropriate Methods of Backflow Protection	G-9
Table G-4. Fixtures, Equipment and Areas with Backflow Potential	G-10
Table G-5. Summary of Backflow Prevention Assemblies.....	G-11
Table G-6. Water Department Personnel Certification	G-13
Table H-1. Water System Ownership Information	H-3
Table H-2. Pressure Zones.....	H-4
Table H-3. Water Sources	H-5
Table H-4. Water Storage Facilities	H-5
Table H-5. Booster Pump Station	H-5
Table H-6. Pressure Reducing Stations	H-6
Table H-7. Monitoring Schedule for 2015 through 2020	H-9
Table H-8. Coliform Monitoring Sampling Locations	H-12
Table I-1. Summary of City of Arlington Water Resources	I-7
Table I-2. Summary of Water Use and Discharge Regulations	I-14
Table I-3. Summary of City of Arlington GIS Mapping Data.....	I-21
Table I-4. Potential Water Management Actions, Benefits, and Limitations.....	I-24

List of Charts

Chart 4-1. 2014 Water Connections by Customer Class	4-6
Chart 4-2. 2014 Water Consumption by Customer Class	4-6
Chart 4-3. Historical Monthly Water Supply by Year (2005-2014)	4-9
Chart 4-4. 2014 Monthly Water Supply by Source	4-10
Chart 4-5. (Amended) Future Water Demand and ERU Projections.....	4-23
 Chart 7-1. Future Water Supply and Demand Projections	 7-5
 Chart 8-1. Public Works Functional Organization Chart.....	 8-2
 Chart E-1. Distribution System Leakage (DSL) Evaluated Against WUE Goals	 E-10
Chart E-2. Three Average Daily Consumption-per-Unit Parameters, 1993 to 2014..	E-11
Chart E-3. Average Daily Consumption-per Connection, by Customer Class.....	E-12
Chart E-4. System-wide Average Day and Maximum Day Consumption.....	E-14
Chart E-5. Peak Day Factor, 2005 to 2014	E-15
Chart E-6. Age Distribution of Service Meters, All Customer Classes, 2015	E-16
Chart E-7. WUE Program Projected Water Savings	E-22
 Chart I-1. Natural and City-managed water resources—conceptual water balance...	 I-12

List of Figures (Maps)

	<u>After page</u>
Figure 2-1. (Amended) Existing Water System	2-26
Figure 2-2. Service Area and Adjacent Systems.....	2-26
Figure 2-3. Existing System Hydraulic Profile	2-26
 Figure 3-1. (Amended) Land Use.....	 3-18
Figure 3-2. Critical Areas	3-18
Figure 3-3. (Amended) Capital Improvement Project Focus Areas.....	3-18
 Figure 9-1. (Amended) Future Water System	 9-24
Figure 9-2. Proposed System Hydraulic Profile	9-24

Appendices

A	WATER FACILITIES INVENTORY FORM.....	A-1
B	WATER SYSTEM FACILITIES DATA	B-1
C	HYDRAULIC MODEL NODE DIAGRAM	C-1
D	PUBLIC WORKS DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS	D-1
E	WATER USE EFFICIENCY (WUE) PROGRAM.....	E-1
E.1	INTRODUCTION.....	3
E.2	REGULATORY REQUIREMENTS.....	3
E.2.1	<i>The Water Use Efficiency Rule</i>	<i>3</i>
E.2.2	<i>Water Use Efficiency Program Requirements.....</i>	<i>3</i>
E.3	REGIONAL WATER USE EFFICIENCY PROGRAM	4
E.4	CITY OF ARLINGTON WATER USE EFFICIENCY PROGRAM.....	4
E.4.1	<i>Water Use Efficiency Goals and the Public Process.....</i>	<i>5</i>
E.4.2	<i>Planning Requirements and WUE Program Activities</i>	<i>7</i>
E.4.3	<i>Distribution System Leakage</i>	<i>7</i>
E.4.4	<i>Water Use Efficiency Program Evaluation and Performance Reporting</i>	<i>8</i>
E.5	EVALUATION OF WATER USE EFFICIENCY MEASURES	13
E.5.1	<i>Mandatory Measures.....</i>	<i>14</i>
E.5.2	<i>Measures That Must Be Evaluated</i>	<i>17</i>
E.6	SELECTED MEASURES.....	18
E.6.1	<i>Conservation Rate Structures.....</i>	<i>18</i>
E.6.2	<i>Reclaimed Water.....</i>	<i>18</i>
E.6.3	<i>Customer Education</i>	<i>19</i>
E.6.4	<i>Outdoor and Indoor Conservation Kits</i>	<i>19</i>
E.6.5	<i>Lawn Watering Calendars</i>	<i>19</i>
E.6.6	<i>Rebate Program.....</i>	<i>20</i>
E.6.7	<i>Leak Detection Program</i>	<i>20</i>
E.6.8	<i>Water Bill Showing Consumption History.....</i>	<i>20</i>
E.6.9	<i>Low Impact Development and Xeriscaping.....</i>	<i>20</i>
E.7	WATER USE EFFICIENCY PROGRAM SCHEDULE AND BUDGET	20
E-1:	ATTACHMENT: COOPERATIVE CONSERVATION	after 20
E-2:	ATTACHMENT: WATER USE EFFICIENCY GOALS AND RESULTS ..	after 20

EE WATER LOSS CONTROL ACTION PLANE-29

EE.1 INTRODUCTION	29
<i>EE.1.1 Background</i>	29
<i>EE.1.2 Consistency with Regulatory Requirements</i>	29
<i>EE.1.3 Format of this Action Plan</i>	30
EE.2 WATER BALANCE HISTORY	30
EE.3 SUMMARY OF CONTROL METHODS	30
EE.4 IMPLEMENTATION SCHEDULE AND BUDGET	31
EE.5 DISCUSSION—WATER BALANCE COMPONENTS	33
<i>EE.5.1 Water Supply</i>	33
<i>EE.5.2 Authorized Revenue Water</i>	34
<i>EE.5.3 Authorized Non-Revenue Water</i>	34
<i>EE.5.4 Unauthorized Water and DSL</i>	36

F WELLHEAD PROTECTION AND WATERSHED CONTROL PROGRAM F-1

F.1 INTRODUCTION	3
<i>F.1.1 Wellhead Protection and Watershed Control Elements</i>	3
<i>F.1.2 Description of the Watershed</i>	4
F.2 DOCUMENTATION OF SOURCE WATER QUALITY TRENDS	5
F.3 IDENTIFICATION OF CURRENT WATERSHED CONTROL MEASURES AND MONITORING ACTIVITIES	6
F.4 SUSCEPTIBILITY ASSESSMENTS	6
F.5 DELINEATION OF WELLHEAD PROTECTION AREAS	6
F.6 INVENTORY OF POTENTIAL CONTAMINANT SOURCES	6
<i>F.6.1 Inventory Approach</i>	6
<i>F.6.2 Inventory Findings</i>	7
<i>F.6.3 Stillaguamish River Contaminants</i>	7
<i>F.6.4 Other Potential Sources</i>	8
<i>10.1.1 Inventory Update Requirements</i>	10
F.7 DOCUMENTATION AND NOTIFICATION	10
F.8 CONTINGENCY PLAN	10
<i>F.8.1 Emergency Condition: Aquifer Contamination</i>	10
F.9 RECOMMENDATIONS	11

G CROSS CONNECTION CONTROL PROGRAM..... G-1

G.1 INTRODUCTION	3
G.2 PURPOSE AND SCOPE	4
G.3 AUTHORITY	4

G.4	RESPONSIBILITY	4
G.5	FAILURE TO COMPLY	4
G.6	CROSS-CONNECTION CONTROL PROGRAM.....	4
G.6.1	<i>Cross-Connection Control Program Goals and Objectives</i>	5
G.6.2	<i>Evaluation of Cross-Connection Control Program Elements</i>	5
G.6.3	<i>Cross-Connection Control Ordinance</i>	5
G.6.4	<i>Evaluation of Service Connections</i>	6
G.6.5	<i>Cross-Connection Control and Elimination</i>	11
G.6.6	<i>Personnel Certification</i>	12
G.6.7	<i>Backflow Assembly Inspection and Testing</i>	13
G.6.8	<i>Testing Quality Control Assurance Program</i>	14
G.6.9	<i>Incident Response</i>	15
G.6.10	<i>Public Education</i>	16
G.6.11	<i>Record Keeping</i>	16
G.6.12	<i>Reclaimed Water Requirements</i>	16
G.7	PROGRAM IMPLEMENTATION AND RECOMMENDATIONS	17

H WATER QUALITY MONITORING PLAN.....H-1

H.1	INTRODUCTION	3
H.2	EXISTING WATER SYSTEM DESCRIPTION	3
H.2.1	<i>Water System Information</i>	3
H.2.2	<i>Water System Operation and Control</i>	3
H.2.3	<i>Pressure Zones</i>	4
H.2.4	<i>Water Sources</i>	5
H.2.5	<i>Water Storage</i>	5
H.2.6	<i>Pump Stations</i>	5
H.2.7	<i>Pressure Reducing Stations</i>	6
H.2.8	<i>Water Treatment</i>	6
H.3	SOURCE WATER QUALITY MONITORING	7
H.3.1	<i>Monitoring Requirements and Procedures</i>	7
H.4	DISTRIBUTION SYSTEM WATER QUALITY MONITORING	10
H.4.1	<i>Monitoring Requirements and Procedures</i>	10

I INTEGRATED WATER RESOURCE MANAGEMENT PROGRAM... I-1

I.1	INTRODUCTION	3
I.2	SUMMARY OF IWRMP AREA.....	4
I.2.1	<i>Land Management Areas</i>	4
I.2.2	<i>Water Service Area</i>	5
I.2.3	<i>Stormwater Management Area</i>	6

Contents of Appendices

I.2.4	Sanitary Sewer Service Area	7
I.3	SUMMARY OF WATER USES	8
I.3.1	Natural Flows	8
I.3.2	Arlington Beneficial Use of Water and Discharge of Collected and Treated Water ...	9
I.3.3	Conceptual Water Balance	10
I.4	SUMMARY OF COMPLIANCE REQUIREMENTS	13
I.4.1	Beneficial Water Use	13
I.4.2	Water Discharges	13
I.4.3	Indirect Regulation of Water Resources that Affect Arlington	15
I.5	POTENTIAL OPPORTUNITIES FOR ADAPTIVE MANAGEMENT OF WATER RESOURCES	16
I.5.1	Potable Supply	16
I.5.2	Improve environmental conditions in IWRMP Area	18
I.6	GEOGRAPHIC INFORMATION SYSTEM FOR INTEGRATED WATER RESOURCE MANAGEMENT	19
I.7	PRIORITIZATION OF POTENTIAL ACTIVITIES FOR ADAPTIVE MANAGEMENT OF WATER RESOURCES	22
I.7.1	Evaluation Criteria for Proposed Activities	22
I.8	CONCLUSIONS AND RECOMMENDATIONS	26
J	CONSUMER CONFIDENCE REPORT	J-1
K	WATER RIGHTS INFORMATION	K-1
L	RETAIL WATER SERVICE AREA AGREEMENTS	L-1
M	SNOHOMISH COUNTY PUD NO. 1 WHOLESALE WATER AGREEMENT	M-1
N	CONSISTENCY REVIEW CHECKLISTS	N-1
O	CITY OF ARLINGTON COUNCIL DECISIONS AND GUIDANCE ...	O-1
P	WATER AND SEWER MUTUAL AID AGREEMENT	P-1
Q	SEPA	Q-1
R	NPDES PERMIT—FILTER BACKWASH WATER DISCHARGE	R-1
S	BREKHUS-BEACH PLANNING INFORMATION	S-1
T	AGENCY REVIEW COMMENTS AND RESPONSES	T-1
U	WATER MAIN REPAIR AND REPLACEMENT CRITERIA AND PRIORITIZATION	U-1

This page blank for formatting and duplex printing.

Reviser's Note Regarding The 2019 Amendment

A Water System Plan (WSP) is required under WAC 246-290-100 to: demonstrate a purveyor's capacity to provide potable water; identify its approach to handling increased demand and system expansion; assure consistency with applicable laws and plans; and establish eligibility for State funding.

The WSP of a Group A community water system like the Arlington Water Department may be *updated* on a 10 year cycle, and it may need to *revised or amended* more frequently for various reasons identified in WAC 246-290-100. The 2015 WSP was completed in January 2016, and is due for a complete WSP Update again by April 20, 2026. The City amended the 2015 WSP in 2017 in order to maintain consistency with the comprehensive plans required of the City of Arlington and Snohomish County under the Growth Management Act. That amendment was initiated by the retraction of the City's plans to grow (and serve water to) west of I-5. Numerous modifications to the text and tables of the 2015 WSP made during the 2017 Amendment were described in the Reviser's Note which follows this one.

This 2019 amendment is much simpler, and stems from the expansion of the City's water service area (WSA) beyond that boundary identified in the 2017 amendment [WAC 246-290-100 (2)(e)(i)]. In September 2017, as the 2017 WSP amendment was going to press, the Cities of Arlington and Marysville completed the exchange of several, contiguous Smokey Point parcels totaling approximately 17.89 acres to the Arlington WSA, consistent with procedures established in the 2012 North Snohomish County Coordinated Water System Plan. The exchange was precipitated by the need of a developer for water pressures which the City of Marysville could not provide. As development progressed in 2019, the parcels were served within the 342 pressure zone by the installation of about 2,136 feet of 12-inch ductile iron water main and various valves and hydrants, consistent with all COA construction standards and guidelines for water systems.

The 2019 amendment consists of the following replacement pages in duplex format: binder cover; inside cover; Table of Contents; Expanded Table of Contents; 2019 Reviser's Note (2017 Reviser's Note moved back one page); and the Appendix L cover page. It also includes a five-page insert, referred to as L.5, to be placed at the back of Appendix L. *No other modifications to text, tables, figures, or maps have been made as a result of this WSA boundary adjustment.* Only those pages above may have a header and/or footer which reflect they are part of the 2019 Amendment.

Reviser's Note Regarding The 2017 Amendment

The City of Arlington 2015 Water System Plan (WSP) planned for the expansion of the City's Urban Growth Area (UGA) and its water distribution system west of I-5. This effort reflected the City's intent to develop west of the freeway in order to accommodate its 2035 population targets established under the Growth Management Act (GMA). The City acted on this intent in the 2014 filing of a petition with Snohomish County for the westward expansion of its UGA.

Planning for the expansion of the water distribution system also assured consistency of the WSP with the City's 2015 GMA Comprehensive Plan. Snohomish County's Planning and Development Services reviewed the 2015 WSP but could not find it consistent with the County's own 2015 GMA Comprehensive Plan, which did not include the City's proposed UGA expansion. Later in 2016, the City withdrew its petition and began revision of its GMA Comprehensive Plan in order to plan for an alternative population placement that was consistent with Snohomish County's plan. For purposes of consistency among all plans, this 2017 Amendment to the 2015 WSP also drops expansion of the distribution system west of I-5, and evaluates the re-allocation of additional population across the City, and its effect on the capacity of the water supply to meet the additional demand.

These planning modifications did not result in revisions to WSP Chapters 4 and 5, nor to most of the appendices. Chapters 1, 2, 6, 7, 8, and 9 in this amended WSP had relatively minor revisions, and these are documented in this publication using underlined insertions and strikeout deletions to quickly and clearly show the effects of the amendment.

Although many portions of Chapter 3 (Land Use) have not changed, there are enough revisions that complete re-printing of the chapter is appropriate. Where changes may be significant, the amended text describes the change. Tables and figures which have substantial changes are also completely replaced, and the word "amended" follows the table and figure numbers in parentheses.

Changes to Chapter 10 (Financial Plan) are relatively minor, but individual revisions are not shown. The primary changes to the Financial Plan are the replacements of Tables 10-4 and 10-5.

The only appendices containing modifications are Appendix C (Hydraulic Model Node Diagram), Appendix N (Consistency Review Checklist), and Appendix Q (SEPA). Agency review comments and responses will be included in Appendix T in the final WSP.

L RETAIL WATER SERVICE AREA AGREEMENTS

- L.1 CWSP 2015 BOUNDARY ADJUSTMENT (MARYSVILLE) CORRESPONDENCE AND AGREEMENT***
- L.2 CWSP 2015 BOUNDARY ADJUSTMENT (MARYSVILLE) MAP***
- L.3 CWSP WATER PURVEYORS MAP 2015***
- L.4 NORTH SNOHOMISH COUNTY COORDINATED WATER SYSTEM PLAN (CWSP) SIGNED AGREEMENT—1990***
- L.5 CWSP 2017 BOUNDARY ADJUSTMENT (MARYSVILLE) CORRESPONDENCE, AGREEMENT, AND MAP***

This page blank for formatting and duplex printing.

L.5 [NEW TO 2019 AMENDMENT]

**CWSP 2017 BOUNDARY ADJUSTMENT (MARYSVILLE)
CORRESPONDENCE, AGREEMENT, AND MAP**



**Snohomish County
Planning and Development Services**

Barb Mock
PDS Director

(425) 388-3311
FAX (425) 388-3870

M/S #604
3000 Rockefeller Avenue
Everett, WA 98201-4046

September 15, 2017

James X. Kelly
Public Works Director
City of Arlington
154 W. Cox Avenue
Arlington, WA 98223

Re: CWSP Boundary Adjustment
Cities of Arlington and Marysville

Dear Mr. Kelly,

Thank you for notifying Snohomish County of the negotiated adjustment to the water provider service area boundary between the Cities of Arlington and Marysville. Attached are the signed Water Service Area Change Agreement documents acknowledging receipt by the county. The county will coordinate changes to the service area map in the Coordinated Water System Plan (CWSP).

If you have not already done so, this revision to your mutual service area should be evaluated for possible requirements administered by the Boundary Review Board as per Section III.4.B of the CWSP which states:

...the Boundary Review Board should be notified of those utilities that have signed Service Area Agreements, of the service area boundary of each such utility, and be requested to recognize these boundaries in the conduct of the Boundary Review Board responsibilities.

Because this service area adjustment is within the city limits of Arlington, it is assumed that franchise agreements with the county are not applicable in this case. Please let me know if this assumption is incorrect so that I can alert the county's Public Works Department. I can be reached by phone at 425-262-2359 or email at terri.strandberg@snoco.org.

Thank you again for your efforts to coordinate with the county.

Sincerely,

Terri Strandberg, Principal Planner
Snohomish County Planning and Development Services



City of Arlington

Public Works

September 8, 2017

Terri Strandberg
Principal Planner
Snohomish County Planning & Development
3000 Rockefeller Ave. M/S #604
Everett, WA 98201

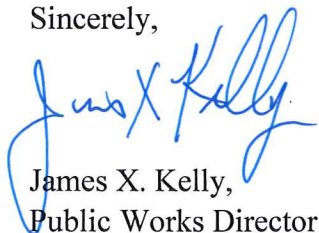
Re: CWSP Boundary Adjustment
Cities of Arlington and Marysville

Ms. Strandberg,

The City of Arlington and the City of Marysville have negotiated an adjustment of our mutual water service area boundary in accordance with the North Snohomish County Coordinated Water System Plan (CWSP). The boundary adjustment is shown on Exhibit A of the attached Water Service Area Change Agreement.

Two original copies of the agreement, signed by the mayors of both cities, are enclosed with this letter. Please coordinate changes to the CWSP water service area map, sign both copies of the agreement and return them to my attention. Please call me at 360.403.3505 if you have any questions about this water service area boundary adjustment or if I can assist with the processing of this request.

Sincerely,



James X. Kelly,
Public Works Director

cc: Kevin Nielsen

enc (1)

WATER SERVICE AREA CHANGE AGREEMENT

between

CITY OF ARLINGTON and

CITY OF MARYSVILLE

An Agreement between the City of Arlington (Arlington) and the City of Marysville (Marysville), individually a "Party" and collectively the "Parties":

WHEREAS, the above Parties each provide retail water service to a Water Service Area agreed to and established in the North Snohomish County Coordinated Water System Plan and identified on the Coordinated Water Service Plan (CWSP); and

WHEREAS, Arlington and Marysville each previously signed an "Agreement for Establishing Water Utility Service Area Boundaries," on file with Snohomish County Planning and Development Services (PDS), an example of which can be found in Appendix D of the 2010 update to the North Snohomish County Coordinated Water System Plan; and

WHEREAS, the current respective water service areas of the Parties to this Agreement are indicated in Figure 1-1 of the CWSP (December 2010 edition); and

WHEREAS, Section III 2.D. of the CWSP allows service area boundaries to be revised at any time with the execution of revised service area agreements by authorized representatives of each affected purveyor; and

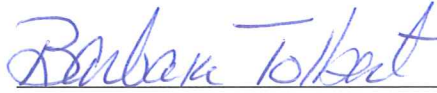
WHEREAS, this Agreement shall serve as an amendment to the agreements on file with PDS;

NOW, THEREFORE, the Parties hereby agree to adjust their respective water service areas to match the Proposed Boundaries on Exhibit A attached hereto and included herein by reference.

THIS AGREEMENT SHALL BE EFFECTIVE with respect to each Party when that Party's authorized representative executes the agreement. The original signature pages shall be delivered to the attention of Terri Strandberg at PDS, which maintains the file of water service area agreements under the CWSP. Copies of the signature pages shall be delivered to each Party to this Agreement. This Agreement may be executed in counterparts.

IN AGREEMENT WHEREOF, the undersigned parties execute this Agreement

City of Arlington Water Utility



Barbara Tolbert
City of Arlington

9-7-17
Date

City of Marysville Water Utility



John Nehring
City of Marysville

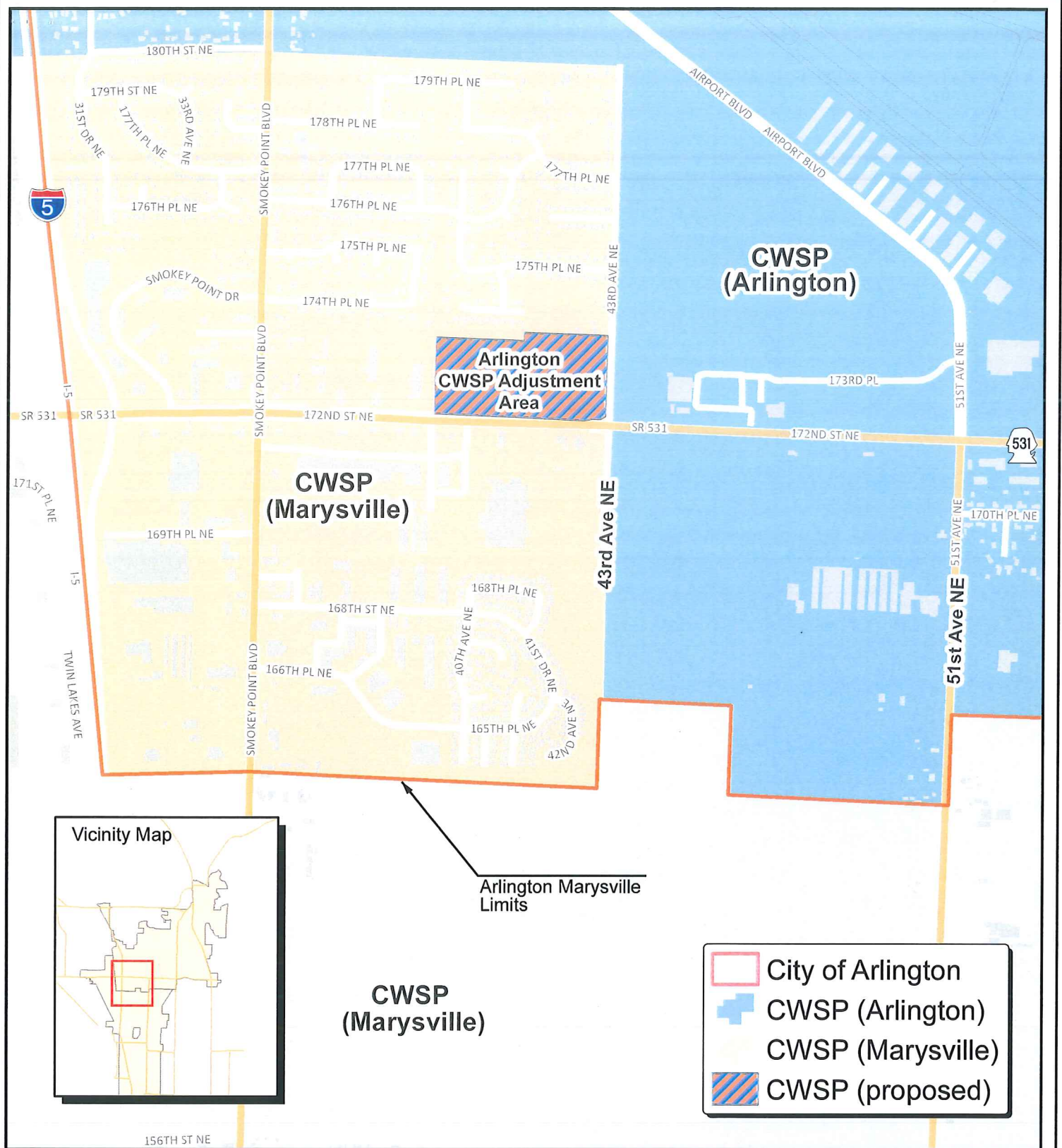
8/30/17
Date

Receipt Acknowledged



Terri Strandberg
Principal Planner
PDS-Snohomish County

9-15-17
Date



Legend

- State Routes
- Roads
- Buildings



Maps and GIS data are distributed "AS-IS" without warranties of any kind, either express or implied, including but not limited to warranties of suitability for a particular purpose or use. Map data are compiled from a variety of sources which may contain errors and users who rely upon the information do so at their own risk. Users agree to indemnify, defend, and hold harmless the City of Arlington for any and all liability of any nature arising out of or resulting from the lack of accuracy or correctness of the data, or the use of the data presented in the maps.

City of Arlington South Arlington CWSP Adjustment Exhibit A

Scale:

1 inch = 1,000 feet

File:

SArlMarUtilExp8.5x11portrait_17

Date:

9/8/2017

Cartographer:

akc