BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

UW-________

JOINT APPLICATION FOR APPROVAL OF THE SALE AND TRANSFER OF ALL ISSUED AND OUTSTANDING MEMBERSHIP INTERESTS IN SUNCADIA WATER COMPANY, LLC, AND FOR CERTAIN OTHER REQUESTED RELIEF

Exhibit 1

NW Natural Holdings' Form 10-Q for 3rd Quarter 2019

November 15, 2019

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-Q

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2019

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ___________ to____________

Commission file number 1-38681	Commission file number 1-15973
NORTHWEST NATURAL HOLDING COMPANY	**NORTHWEST NATURAL GAS COMPANY**
(Exact name of registrant as specified in its charter)	(Exact name of registrant as specified in its charter)
Oregon (State or other jurisdiction of incorporation or organization)	**Oregon** (State or other jurisdiction of incorporation or organization)
82-4710680 (I.R.S. Employer Identification No.)	**93-0256722** (I.R.S. Employer Identification No.)
220 N.W. Second Avenue	**220 N.W. Second Avenue**
Portland Oregon (Address of principal executive offices)	**Portland Oregon** (Address of principal executive offices)
97209 (Zip Code)	**97209** (Zip Code)
Registrant's telephone number: **(503) 226-4211**	Registrant's telephone number: **(503) 226-4211**

Securities registered pursuant to Section 12(b) of the Act:

Registrant	Title of each class	Trading Symbol	Name of each exchange on which registered
NORTHWEST NATURAL HOLDING COMPANY	Common Stock	NWN	New York Stock Exchange
NORTHWEST NATURAL GAS COMPANY	None		

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

NORTHWEST NATURAL HOLDING COMPANY Yes ☒ No ☐ NORTHWEST NATURAL GAS COMPANY Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

NORTHWEST NATURAL HOLDING COMPANY Yes ☒ No ☐ NORTHWEST NATURAL GAS COMPANY Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

NORTHWEST NATURAL HOLDING COMPANY		NORTHWEST NATURAL GAS COMPANY	
Large Accelerated Filer	☒	Large Accelerated Filer	☐
Accelerated Filer	☐	Accelerated Filer	☐
Non-accelerated Filer	☐	Non-accelerated Filer	☒
Smaller Reporting Company	☐	Smaller Reporting Company	☐
Emerging Growth Company	☐	Emerging Growth Company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

NORTHWEST NATURAL HOLDING COMPANY Yes ☐ No ☒ NORTHWEST NATURAL GAS COMPANY Yes ☐ No ☒

At October 25, 2019, 30,435,575 shares of Northwest Natural Holding Company's Common Stock (the only class of Common Stock) were outstanding. All shares of Northwest Natural Gas Company's Common Stock (the only class of Common Stock) outstanding were held by Northwest Natural Holding Company.

This combined Form 10-Q is separately filed by Northwest Natural Holding Company and Northwest Natural Gas Company. Information contained in this document relating to Northwest Natural Gas Company is filed by Northwest Natural Holding Company and separately by Northwest Natural Gas Company. Northwest Natural Gas Company makes no representation as to information relating to Northwest Natural Holding Company or its subsidiaries, except as it may relate to Northwest Natural Gas Company and its subsidiaries.

NORTHWEST NATURAL GAS COMPANY
NORTHWEST NATURAL HOLDING COMPANY
For the Quarterly Period Ended September 30, 2019

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PART I. FINANCIAL INFORMATION

FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which are subject to the safe harbors created by such Act. Forward-looking statements can be identified by words such as anticipates, assumes, intends, plans, seeks, believes, estimates, expects, and similar references to future periods. Examples of forward-looking statements include, but are not limited to, statements regarding the following:

- plans, projections and predictions;
- objectives, goals or strategies;
- assumptions, generalizations and estimates;
- ongoing continuation of past practices or patterns;
- future events or performance;
- trends;
- risks;
- uncertainties;
- timing and cyclicality;
- earnings and dividends;
- capital expenditures and allocation;
- capital or organizational structure;
- climate change and our role in a low-carbon, renewable-energy future;
- growth;
- customer rates;
- labor relations and workforce succession;
- commodity costs;
- gas reserves;
- operational performance and costs;
- energy policy, infrastructure and preferences;
- public policy approach and involvement;
- efficacy of derivatives and hedges;
- liquidity, financial positions, and planned securities issuances;
- valuations;
- project and program development, expansion, or investment;
- business development efforts, including acquisitions and integration thereof;
- implementation and execution of our water strategy;
- pipeline capacity, demand, location, and reliability;
- adequacy of property rights and headquarter development;
- technology implementation and cybersecurity practices;
- competition;
- procurement and development of gas (including renewable natural gas) and water supplies;
- estimated expenditures;
- costs of compliance;
- customers bypassing our infrastructure;
- credit exposures;
- rate or regulatory outcomes, recovery or refunds;
- impacts or changes of laws, rules and regulations;
- tax liabilities or refunds, including effects of tax reform;
- levels and pricing of gas storage contracts and gas storage markets;
- outcomes, timing and effects of potential claims, litigation, regulatory actions, and other administrative matters;
- projected obligations, expectations and treatment with respect to retirement plans;
- availability, adequacy, and shift in mix, of gas and water supplies;
- effects of new or anticipated changes in critical accounting policies or estimates;
- approval and adequacy of regulatory deferrals;
- effects and efficacy of regulatory mechanisms; and
- environmental, regulatory, litigation and insurance costs and recoveries, and timing thereof.

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy, and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements. We therefore caution you against relying on any of these forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. Important factors that could cause actual results to differ materially from those in the forward-looking statements are discussed in NW Holdings' and NW Natural's 2018 Annual Report on Form 10-K, Part I, Item 1A "*Risk Factors*" and Part II, Item 7 and Item 7A, "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" and "*Quantitative and Qualitative Disclosures about Market Risk*," and in Part I, Items 2 and 3, "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" and "*Quantitative and Qualitative Disclosures About Market Risk*", respectively of Part II of this report.

Any forward-looking statement made in this report speaks only as of the date on which it is made. Factors or events that could cause actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by law.

ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS

NORTHWEST NATURAL HOLDING COMPANY

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

	Three Months Ended September 30,		Nine Months Ended September 30,	
In thousands, except per share data	2019	2018	2019	2018
Operating revenues	$ 90,317	$ 91,239	$ 499,108	$ 479,441
Operating expenses:				
Cost of gas	22,603	25,538	163,167	175,697
Operations and maintenance	40,886	37,569	131,854	115,120
Environmental remediation	967	1,022	7,258	7,528
General taxes	7,993	7,589	24,899	24,792
Revenue taxes	3,534	3,522	19,956	20,731
Depreciation and amortization	23,375	21,485	67,334	63,507
Other operating expenses	593	625	2,131	2,157
Total operating expenses	99,951	97,350	416,599	409,532
Income (loss) from operations	(9,634)	(6,111)	82,509	69,909
Other income (expense), net	(2,267)	(312)	(18,782)	(1,139)
Interest expense, net	10,948	9,006	31,807	27,051
Income (loss) before income taxes	(22,849)	(15,429)	31,920	41,719
Income tax (benefit) expense	(4,343)	(4,285)	4,957	11,191
Net income (loss) from continuing operations	(18,506)	(11,144)	26,963	30,528
Loss from discontinued operations, net of tax	(795)	(650)	(1,968)	(1,783)
Net income (loss)	(19,301)	(11,794)	24,995	28,745
Other comprehensive income:				
Amortization of non-qualified employee benefit plan liability, net of taxes of $43 and $55 for the three months ended and $125 and $166 for the nine months ended September 30, 2019 and 2018, respectively	114	154	344	461
Comprehensive income (loss)	$ (19,187)	$ (11,640)	$ 25,339	$ 29,206
Average common shares outstanding:				
Basic	30,429	28,815	29,563	28,787
Diluted	30,429	28,815	29,628	28,846
Earnings (loss) from continuing operations per share of common stock:				
Basic	$ (0.61)	$ (0.39)	$ 0.91	$ 1.06
Diluted	(0.61)	(0.39)	0.91	1.06
Loss from discontinued operations per share of common stock:				
Basic	$ (0.02)	$ (0.02)	$ (0.07)	$ (0.06)
Diluted	(0.02)	(0.02)	(0.07)	(0.06)
Earnings (loss) per share of common stock:				
Basic	$ (0.63)	$ (0.41)	$ 0.84	$ 1.00
Diluted	(0.63)	(0.41)	0.84	1.00

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL HOLDING COMPANY
CONSOLIDATED BALANCE SHEETS (UNAUDITED)

In thousands	September 30, 2019	September 30, 2018	December 31, 2018
Assets:			
Current assets:			
Cash and cash equivalents	$ 10,522	$ 29,965	$ 12,633
Accounts receivable	29,617	25,125	66,970
Accrued unbilled revenue	17,934	16,351	57,827
Allowance for uncollectible accounts	(180)	(394)	(977)
Regulatory assets	47,996	41,241	41,930
Derivative instruments	5,987	2,871	9,001
Inventories	41,230	53,064	44,149
Gas reserves	16,392	16,916	16,647
Income taxes receivable	—	—	6,000
Other current assets	18,617	20,376	28,472
Discontinued operations current assets (Note 18)	14,612	12,644	13,269
Total current assets	202,727	218,159	295,921
Non-current assets:			
Property, plant, and equipment	3,416,718	3,370,388	3,414,490
Less: Accumulated depreciation	1,027,330	996,994	993,118
Total property, plant, and equipment, net	2,389,388	2,373,394	2,421,372
Gas reserves	51,978	70,556	66,197
Regulatory assets	313,890	333,917	371,786
Derivative instruments	1,610	861	725
Other investments	63,018	65,113	63,558
Operating lease right of use asset	3,917	—	—
Assets under sales-type leases	147,918	—	—
Goodwill	49,333	6,563	8,954
Other non-current assets	27,839	12,844	14,149
Total non-current assets	3,048,891	2,863,248	2,946,741
Total assets	$ 3,251,618	$ 3,081,407	$ 3,242,662

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL HOLDING COMPANY
CONSOLIDATED BALANCE SHEETS (UNAUDITED)

In thousands, including share information	September 30, 2019	September 30, 2018	December 31, 2018
Liabilities and equity:			
Current liabilities:			
Short-term debt	$ 65,580	$ 100,500	$ 217,620
Current maturities of long-term debt	94,671	84,940	29,989
Accounts payable	76,197	80,143	115,878
Taxes accrued	13,382	13,074	11,023
Interest accrued	10,406	9,453	7,306
Regulatory liabilities	37,573	37,504	47,436
Derivative instruments	4,156	8,828	12,381
Operating lease liabilities	3,171	—	—
Other current liabilities	39,873	35,497	54,492
Discontinued operations current liabilities (Note 18)	13,399	13,003	12,959
Total current liabilities	358,408	382,942	509,084
Long-term debt	806,014	724,654	706,247
Deferred credits and other non-current liabilities:			
Deferred tax liabilities	284,625	274,315	280,463
Regulatory liabilities	615,813	606,175	611,560
Pension and other postretirement benefit liabilities	215,007	212,249	221,886
Derivative instruments	2,998	3,016	3,025
Operating lease liabilities	732	—	—
Other non-current liabilities	123,352	140,475	147,763
Total deferred credits and other non-current liabilities	1,242,527	1,236,230	1,264,697
Commitments and contingencies (Note 17)			
Equity:			
Common stock - no par value; authorized 100,000 shares; issued and outstanding 30,435, 28,844, and 28,880 at September 30, 2019 and 2018, and December 31, 2018, respectively	556,623	455,499	457,640
Retained earnings	296,256	290,059	312,182
Accumulated other comprehensive loss	(8,210)	(7,977)	(7,188)
Total equity	844,669	737,581	762,634
Total liabilities and equity	$ 3,251,618	$ 3,081,407	$ 3,242,662

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL HOLDING COMPANY
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (UNAUDITED)

In thousands, except per share amounts	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Total shareholders' equity, beginning balances	$ 876,746	$ 759,526	$ 762,634	$ 742,776
Common stock:				
Beginning balances	555,052	452,195	457,640	448,865
Stock-based compensation	485	237	2,309	2,161
Shares issued pursuant to equity based plans	1,082	2,487	3,718	3,893
Issuance of common stock, net of issuance costs	4	—	92,956	—
Cash purchase of shares for business combination	—	(7,945)	—	(7,945)
Value of shares transferred for business combination	—	8,525	—	8,525
Ending balances	556,623	455,499	556,623	455,499
Retained earnings:				
Beginning balances	330,018	315,462	312,182	302,349
Net income (loss)	(19,301)	(11,794)	24,995	28,745
Dividends on common stock	(14,461)	(13,609)	(42,287)	(41,035)
Reclassification of tax effects from the TCJA	—	—	1,366	—
Ending balances	296,256	290,059	296,256	290,059
Accumulated other comprehensive income (loss):				
Beginning balances	(8,324)	(8,131)	(7,188)	(8,438)
Other comprehensive income	114	154	344	461
Reclassification of tax effects from the TCJA	—	—	(1,366)	—
Ending balances	(8,210)	(7,977)	(8,210)	(7,977)
Total shareholders' equity, ending balances	$ 844,669	$ 737,581	$ 844,669	$ 737,581
Dividends per share of common stock	$ 0.4750	$ 0.4725	$ 1.4250	$ 1.4175

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL HOLDING COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

	Nine Months Ended September 30,	
In thousands	2019	2018
Operating activities:		
Net income	$ 24,995	$ 28,745
Adjustments to reconcile net income to cash provided by operations:		
Depreciation and amortization	67,334	63,507
Regulatory amortization of gas reserves	14,474	12,056
Deferred income taxes	2,471	3,954
Qualified defined benefit pension plan expense	10,464	4,450
Contributions to qualified defined benefit pension plans	(7,810)	(11,690)
Deferred environmental expenditures, net	(10,992)	(10,547)
Amortization of environmental remediation	7,258	7,528
Regulatory revenue recovery deferral from the TCJA	742	6,983
Regulatory disallowance of pension costs	10,500	—
Other	9,058	1,541
Changes in assets and liabilities:		
Receivables, net	80,205	83,194
Inventories	(3,293)	(5,134)
Income and other taxes	21,510	(5,809)
Accounts payable	(31,767)	(22,929)
Interest accrued	3,100	2,680
Deferred gas costs	(47,085)	2,372
Decoupling mechanism	11,095	2,915
Other, net	(6,713)	(6,503)
Discontinued operations	(255)	1,216
Cash provided by operating activities	155,291	158,529
Investing activities:		
Capital expenditures	(152,993)	(158,795)
Acquisitions, net of cash acquired	(56,189)	136
Other	(15,460)	(1,797)
Discontinued operations	(648)	(619)
Cash used in investing activities	(225,290)	(161,075)
Financing activities:		
Proceeds from stock options exercised	1,723	1,368
Proceeds from common stock issued	93,182	—
Long-term debt issued	175,000	50,000
Long-term debt retired	(10,000)	(22,000)
Change in short-term debt	(152,040)	46,300
Cash dividend payments on common stock	(39,605)	(38,387)
Stock purchases related to acquisitions	—	(7,951)
Other	(372)	(291)
Cash provided by financing activities	67,888	29,039
Increase (decrease) in cash and cash equivalents	(2,111)	26,493
Cash and cash equivalents, beginning of period	12,633	3,472
Cash and cash equivalents, end of period	$ 10,522	$ 29,965
Supplemental disclosure of cash flow information:		
Interest paid, net of capitalization	$ 27,736	$ 22,821
Income taxes paid (refunded), net	(6,096)	22,047

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

	Three Months Ended September 30,		Nine Months Ended September 30,	
In thousands	2019	2018	2019	2018
Operating revenues	$ 87,592	$ 91,227	$ 494,680	$ 479,425
Operating expenses:				
Cost of gas	22,659	25,593	163,335	175,864
Operations and maintenance	37,710	37,709	125,436	115,108
Environmental remediation	967	1,022	7,258	7,528
General taxes	7,881	7,584	24,695	24,764
Revenue taxes	3,534	3,522	19,956	20,731
Depreciation and amortization	23,074	21,454	66,821	63,412
Other operating expenses	586	624	2,114	2,156
Total operating expenses	96,411	97,508	409,615	409,563
Income (loss) from operations	(8,819)	(6,281)	85,065	69,862
Other income (expense), net	(2,323)	(320)	(18,905)	(1,168)
Interest expense, net	10,459	9,007	30,979	27,052
Income (loss) before income taxes	(21,601)	(15,608)	35,181	41,642
Income tax (benefit) expense	(4,013)	(4,333)	5,820	11,174
Net income (loss) from continuing operations	(17,588)	(11,275)	29,361	30,468
Loss from discontinued operations, net of tax	—	(519)	—	(1,723)
Net income (loss)	(17,588)	(11,794)	29,361	28,745
Other comprehensive income:				
Amortization of non-qualified employee benefit plan liability, net of taxes of $43 and $55 for the three months ended and $125 and $166 for the nine months ended September 30, 2019 and 2018, respectively	114	154	344	461
Comprehensive income (loss)	$ (17,474)	$ (11,640)	$ 29,705	$ 29,206

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY
CONSOLIDATED BALANCE SHEETS (UNAUDITED)

In thousands	September 30, 2019	September 30, 2018	December 31, 2018
Assets:			
Current assets:			
Cash and cash equivalents	$ 6,274	$ 8,886	$ 7,947
Accounts receivable	29,065	25,003	66,824
Accrued unbilled revenue	17,843	16,351	57,773
Receivables from affiliates	1,106	388	4,166
Allowance for uncollectible accounts	(178)	(392)	(975)
Regulatory assets	47,996	41,241	41,930
Derivative instruments	5,987	2,871	9,001
Inventories	41,148	53,047	44,126
Gas reserves	16,392	16,916	16,647
Other current assets	17,519	20,321	25,347
Discontinued operations current assets (Note 18)	—	26,227	—
Total current assets	183,152	210,859	272,786
Non-current assets:			
Property, plant, and equipment	3,397,053	3,366,896	3,410,439
Less: Accumulated depreciation	1,026,631	996,780	992,855
Total property, plant, and equipment, net	2,370,422	2,370,116	2,417,584
Gas reserves	51,978	70,556	66,197
Regulatory assets	313,890	333,917	371,786
Derivative instruments	1,610	861	725
Other investments	49,503	51,459	49,922
Operating lease right of use asset	3,745	—	—
Assets under sales-type leases	147,918	—	—
Other non-current assets	27,423	12,740	13,736
Discontinued operations non-current assets (Note 18)	—	35,079	—
Total non-current assets	2,966,489	2,874,728	2,919,950
Total assets	$ 3,149,641	$ 3,085,587	$ 3,192,736

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY

CONSOLIDATED BALANCE SHEETS (UNAUDITED)

In thousands	September 30, 2019	September 30, 2018	December 31, 2018
Liabilities and equity:			
Current liabilities:			
Short-term debt	$ 45,500	$ 100,500	$ 217,500
Current maturities of long-term debt	94,633	84,940	29,989
Accounts payable	75,126	79,608	114,937
Payables to affiliates	4,185	3,235	523
Taxes accrued	12,941	13,034	10,990
Interest accrued	10,405	9,453	7,273
Regulatory liabilities	37,573	37,504	47,436
Derivative instruments	4,156	8,828	12,381
Operating lease liabilities	3,075	—	—
Other current liabilities	38,328	34,403	53,027
Discontinued operations current liabilities (Note 18)	—	3,769	—
Total current liabilities	325,922	375,274	494,056
Long-term debt	768,995	723,820	704,134
Deferred credits and other non-current liabilities:			
Deferred tax liabilities	298,039	289,012	294,739
Regulatory liabilities	615,813	606,175	611,560
Pension and other postretirement benefit liabilities	215,007	212,249	221,886
Derivative instruments	2,998	3,016	3,025
Operating lease liabilities	654	—	—
Other non-current liabilities	123,259	140,390	147,668
Discontinued operations - non-current liabilities (Note 18)	—	(1,930)	—
Total deferred credits and other non-current liabilities	1,255,770	1,248,912	1,278,878
Commitments and contingencies (Note 17)			
Equity:			
Common stock	319,634	455,499	226,452
Retained earnings	487,530	290,059	496,404
Accumulated other comprehensive loss	(8,210)	(7,977)	(7,188)
Total equity	798,954	737,581	715,668
Total liabilities and equity	$ 3,149,641	$ 3,085,587	$ 3,192,736

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY

CONSOLIDATED STATEMENTS OF SHAREHOLDER'S EQUITY (UNAUDITED)

In thousands	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Total shareholder's equity, beginning balances	$ 830,115	$ 759,526	$ 715,668	$ 742,776
Common stock:				
Beginning balances	319,634	452,195	226,452	448,865
Stock-based compensation[(1)]	—	237	—	2,161
Additional paid-in capital pursuant to employee stock purchase plan	—	2,487	—	3,893
Capital contribution from parent	—	—	93,182	—
Cash purchase of shares for business combination	—	(7,945)	—	(7,945)
Value of shares transferred for business combination	—	8,525	—	8,525
Ending balances	319,634	455,499	319,634	455,499
Retained earnings:				
Beginning balances	518,805	315,462	496,404	302,349
Net income (loss)	(17,588)	(11,794)	29,361	28,745
Dividends on common stock	(13,687)	(13,609)	(39,601)	(41,035)
Reclassification of tax effects from the TCJA	—	—	1,366	—
Ending balances	487,530	290,059	487,530	290,059
Accumulated other comprehensive income (loss):				
Beginning balances	(8,324)	(8,131)	(7,188)	(8,438)
Other comprehensive income	114	154	344	461
Reclassification of tax effects from the TCJA	—	—	(1,366)	—
Ending balances	(8,210)	(7,977)	(8,210)	(7,977)
Total shareholder's equity, ending balances	$ 798,954	$ 737,581	$ 798,954	$ 737,581

(1) Stock-based compensation is based on stock awards to NW Natural employees to be issued in shares of NW Holdings.

See Notes to Unaudited Consolidated Financial Statements

NORTHWEST NATURAL GAS COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

	Nine Months Ended September 30,	
In thousands	2019	2018
Operating activities:		
Net income	$ 29,361	$ 28,745
Adjustments to reconcile net income to cash provided by operations:		
Depreciation and amortization	66,821	63,412
Regulatory amortization of gas reserves	14,474	12,056
Deferred income taxes	(5)	2,349
Qualified defined benefit pension plan expense	10,464	4,450
Contributions to qualified defined benefit pension plans	(7,810)	(11,690)
Deferred environmental expenditures, net	(10,992)	(10,547)
Amortization of environmental remediation	7,258	7,528
Regulatory revenue deferral from the TCJA	742	6,983
Regulatory disallowance of pension costs	10,500	—
Other	7,903	1,909
Changes in assets and liabilities:		
Receivables, net	83,581	83,116
Inventories	(3,321)	(5,504)
Income and other taxes	13,505	(5,810)
Accounts payable	(30,281)	(22,738)
Interest accrued	3,132	2,680
Deferred gas costs	(47,085)	2,372
Decoupling mechanism	11,095	2,915
Other, net	(4,878)	(6,368)
Discontinued operations	—	2,077
Cash provided by operating activities	154,464	157,935
Investing activities:		
Capital expenditures	(151,915)	(158,795)
Other	(15,460)	(2,797)
Discontinued operations	—	(19,606)
Cash used in investing activities	(167,375)	(181,198)
Financing activities:		
Proceeds from stock options exercised	—	1,368
Capital contribution from parent	93,182	—
Long-term debt issued	140,000	50,000
Long-term debt retired	(10,000)	(22,000)
Change in short-term debt	(172,000)	46,300
Cash dividend payments on common stock	(39,601)	(38,387)
Other	(343)	(291)
Discontinued operations	—	(7,951)
Cash provided by financing activities	11,238	29,039
Increase (decrease) in cash and cash equivalents	(1,673)	5,776
Cash and cash equivalents, beginning of period	7,947	3,110
Cash and cash equivalents, end of period	$ 6,274	$ 8,886
Supplemental disclosure of cash flow information:		
Interest paid, net of capitalization	$ 26,927	$ 22,821
Income taxes paid (refunded), net	(6,096)	22,047

See Notes to Unaudited Consolidated Financial Statements

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

1. ORGANIZATION AND PRINCIPLES OF CONSOLIDATION

On October 1, 2018, we completed a reorganization into a holding company structure. In this reorganization, shareholders of NW Natural (the predecessor publicly held parent company) became shareholders of NW Holdings on a one-for-one basis; maintaining the same number of shares and ownership percentage as held in NW Natural immediately prior to the reorganization. NW Natural became a wholly-owned subsidiary of NW Holdings. Additionally, certain subsidiaries of NW Natural were transferred to NW Holdings. This reorganization was accounted for as a transaction among entities under common control. As required under accounting guidance, these subsidiaries are presented in this report as discontinued operations in the consolidated results of NW Natural. See Note 18 for additional information.

The accompanying consolidated financial statements represent the respective, consolidated financial results of NW Holdings and NW Natural and all respective companies that each registrant directly or indirectly controls, either through majority ownership or otherwise. This is a combined report of NW Holdings and NW Natural, which includes separate consolidated financial statements for each registrant.

NW Natural's regulated natural gas distribution activities are reported in the natural gas distribution (NGD) segment. The NGD segment is NW Natural's core operating business and serves residential, commercial, and industrial customers in Oregon and southwest Washington. The NGD segment is the only reportable segment for NW Holdings and NW Natural. All other activities, water businesses, and other investments are aggregated and reported as other at their respective registrant.

In addition, NW Holdings has reported discontinued operations results related to the pending sale of Gill Ranch Storage, LLC (Gill Ranch). All prior period amounts have been retrospectively adjusted to reflect this change both in operational results and reportable segments for NW Holdings and NW Natural, respectively. These reclassifications and the reorganization activities described above had no effect on the prior year's consolidated results of operations, financial condition, or cash flows. See Note 18 for additional information.

NW Holdings' direct and indirect wholly-owned subsidiaries as of the filing date of this report include:

- Northwest Natural Gas Company (NW Natural);
  - Northwest Energy Corporation (Energy Corp);
    - NWN Gas Reserves LLC (NWN Gas Reserves);
- NW Natural Energy, LLC (NWN Energy);
  - NW Natural Gas Storage, LLC (NWN Gas Storage);
    - Gill Ranch Storage, LLC (Gill Ranch), which is presented as a discontinued operation;
- NNG Financial Corporation (NNG Financial);
  - KB Pipeline Company (KB);
- NW Natural Water Company, LLC (NWN Water);
  - Falls Water Co., Inc. (Falls Water);
  - Salmon Valley Water Company;
  - NW Natural Water of Oregon, LLC (NWN Water of Oregon);
    - Sunstone Water, LLC;
    - Sunstone Infrastructure, LLC;
    - Sunriver Water, LLC (Sunriver Water);
    - Sunriver Environmental, LLC (Sunriver Environmental);
  - NW Natural Water of Washington, LLC (NWN Water of Washington);
    - Cascadia Infrastructure, LLC;
    - Cascadia Water, LLC (Cascadia);
  - NW Natural Water of Idaho, LLC (NWN Water of Idaho);
    - Gem State Water Company, LLC (Gem State);
    - Gem State Infrastructure, LLC; and
  - NW Natural Water of Texas, LLC (NWN Water of Texas).

Investments in corporate joint ventures and partnerships that NW Holdings does not directly or indirectly control, and for which it is not the primary beneficiary, include NNG Financial's investment in Kelso-Beaver Pipeline and NWN Energy's investment in Trail West Holdings, LLC (TWH), which are accounted for under the equity method. NW Holdings and its direct and indirect subsidiaries are collectively referred to herein as NW Holdings, and NW Natural and its direct and indirect subsidiaries are collectively referred to herein as NW Natural. The consolidated financial statements of NW Holdings and NW Natural are presented after elimination of all intercompany balances and transactions.

Information presented in these interim consolidated financial statements is unaudited, but includes all material adjustments management considers necessary for a fair statement of the results for each period reported including normal recurring accruals. These consolidated financial statements should be read in conjunction with the audited consolidated financial statements and related notes included in NW Holdings' and NW Natural's combined 2018 Annual Report on Form 10-K (2018 Form 10-K). A significant part of NW Holdings' and NW Natural's business is of a seasonal nature; therefore, NW Holdings and NW Natural results of operations for interim periods are not necessarily indicative of full year results. Seasonality affects the comparability of the results of other operations across quarters but not across years.

During the second quarter of 2018, we moved forward with our long-term strategic plans, which include a shift away from the California gas storage business. In June 2018, NWN Gas Storage, a wholly-owned subsidiary of NW Natural at the time and now a wholly-owned subsidiary of NW Holdings, entered into a Purchase and Sale Agreement that provides for the sale of all of the membership interests in its wholly-owned subsidiary, Gill Ranch, subject to various regulatory approvals and closing conditions. We have concluded that the pending sale of Gill Ranch qualifies as assets and liabilities held for sale and discontinued operations. As such, the results of Gill Ranch have been presented as a discontinued operation for NW Holdings for all periods presented and for NW Natural up until the holding company reorganization was effective on October 1, 2018 on the consolidated statements of comprehensive income and cash flows, and the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and liabilities on the NW Holdings consolidated balance sheet. See Note 18 for additional information. Additionally, we reevaluated reportable segments and concluded that the remaining gas storage activities no longer met the requirements to be separately reported as a segment. Interstate Storage Services is now reported in Other under NW Natural and NW Holdings as applicable, and all prior periods reflect this change. See Note 4, which provides segment information.

Notes to the consolidated financial statements reflect the activity of continuing operations for both NW Holdings and NW Natural for all periods presented, unless otherwise noted.

2. SIGNIFICANT ACCOUNTING POLICIES

Significant accounting policies are described in Note 2 of the 2018 Form 10-K. There were no material changes to those accounting policies during the nine months ended September 30, 2019 other than those set forth in this Note 2. The following are current updates to certain critical accounting policy estimates and new accounting standards.

Industry Regulation

In applying regulatory accounting principles, NW Holdings and NW Natural capitalize or defer certain costs and revenues as regulatory assets and liabilities pursuant to orders of the Oregon Public Utilities Commission (OPUC), Washington Utilities and Transportation Commission (WUTC) or Idaho Public Utilities Commission (IPUC), which provide for the recovery of revenues or expenses from, or refunds to, utility customers in future periods, including a return or a carrying charge in certain cases.

Amounts deferred as regulatory assets and liabilities were as follows:

	Regulatory Assets		
	September 30,		December 31,
In thousands	2019	2018	2018
Current:			
Unrealized loss on derivatives[1]	$ 4,156	$ 8,828	$ 12,381
Gas costs	21,094	461	2,873
Environmental costs[2]	5,100	5,633	5,601
Decoupling[3]	413	11,990	9,140
Pension balancing[4]	5,215	—	—
Income taxes	2,209	2,217	2,218
Other[5]	9,809	12,112	9,717
Total current	$ 47,996	$ 41,241	$ 41,930
Non-current:			
Unrealized loss on derivatives[1]	$ 2,998	$ 3,016	$ 3,025
Pension balancing[4]	50,019	72,291	74,173
Income taxes	17,758	19,267	19,185
Pension and other postretirement benefit liabilities	164,709	165,741	174,993
Environmental costs[2]	69,250	63,464	76,149
Gas costs	921	14	9,978
Decoupling[3]	—	829	2,545
Other[5]	8,235	9,295	11,738
Total non-current	$ 313,890	$ 333,917	$ 371,786

	Regulatory Liabilities		
	September 30,		December 31,
In thousands	2019	2018	2018
Current:			
Gas costs	$ 3,204	$ 20,716	$ 17,182
Unrealized gain on derivatives[1]	5,720	2,862	8,740
Decoupling[3]	2,007	1,697	2,264
Income taxes	7,763	—	—
Other[5]	18,879	12,229	19,250
Total current	$ 37,573	$ 37,504	$ 47,436
Non-current:			
Gas costs	$ 50	$ 1,409	$ 552
Unrealized gain on derivatives[1]	1,610	861	725
Decoupling[3]	80	119	—
Income taxes[6]	206,572	223,841	225,408
Accrued asset removal costs[7]	396,418	375,257	380,464
Other[5]	11,083	4,688	4,411
Total non-current	$ 615,813	$ 606,175	$ 611,560

(1) Unrealized gains or losses on derivatives are non-cash items and therefore do not earn a rate of return or a carrying charge. These amounts are recoverable through NGD rates as part of the annual Purchased Gas Adjustment (PGA) mechanism when realized at settlement.
(2) Refer to footnote (3) of the Deferred Regulatory Asset table in Note 17 for a description of environmental costs.
(3) This deferral represents the margin adjustment resulting from differences between actual and expected volumes.
(4) Refer to Note 10 for information regarding the deferral of pension expenses.
(5) Balances consist of deferrals and amortizations under approved regulatory mechanisms and typically earn a rate of return or carrying charge.
(6) This balance represents estimated amounts associated with the Tax Cuts and Jobs Act. See Note 11.
(7) Estimated costs of removal on certain regulated properties are collected through rates.

We believe all costs incurred and deferred at September 30, 2019 are prudent. All regulatory assets and liabilities are reviewed annually for recoverability, or more often if circumstances warrant. If we should determine that all or a portion of these regulatory assets or liabilities no longer meet the criteria for continued application of regulatory accounting, then NW Natural would be required to write-off the net unrecoverable balances in the period such determination is made.

New Accounting Standards

We consider the applicability and impact of all accounting standards updates (ASUs) issued by the Financial Accounting Standards Board (FASB). ASUs not listed below were assessed and determined to be either not applicable or are expected to have minimal impact on NW Natural's consolidated financial position or results of operations.

Recently Adopted Accounting Pronouncements

ACCUMULATED OTHER COMPREHENSIVE INCOME. On February 14, 2018, the FASB issued ASU 2018-02, "Income Statement—Reporting Comprehensive Income: Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." This update was issued in response to concerns from certain stakeholders regarding the current requirements under U.S. GAAP that deferred tax assets and liabilities are adjusted for a change in tax laws or rates, and the effect is to be included in income from continuing operations in the period of the enactment date. This requirement is also applicable to items in accumulated other comprehensive income where the related tax effects were originally recognized in other comprehensive income. The adjustment of deferred taxes due to the new corporate income tax rate enacted through the Tax Cuts and Jobs Act (TCJA) on December 22, 2017 recognized in income from continuing operations causes the tax effects of items within accumulated other comprehensive income (referred to as stranded tax effects) to not reflect the appropriate tax rate. The amendments in this update allow but do not require a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the TCJA and require certain disclosures about stranded tax effects. NW Natural adopted and applied the standard in the first quarter of 2019. NW Natural elected to reclassify the stranded tax effects of the TCJA of $1.4 million from accumulated other comprehensive loss to retained earnings in the period of adoption. Going forward, our policy is that, in the event that regulation changes result in stranded tax effects, such amounts will be reclassified from accumulated other comprehensive income (loss) to retained earnings in the final period that the related deferred tax balance remeasurement is expected to impact income from continuing operations.

DERIVATIVES AND HEDGING. On August 28, 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities." The purpose of the amendment is to more closely align hedge accounting with companies' risk management strategies. The ASU amends the accounting for risk component hedging, the hedged item in fair value hedges of interest rate risk, and amounts excluded from the assessment of hedge effectiveness. The guidance also amends the recognition and presentation of the effect of hedging instruments and includes other simplifications of hedge accounting. The amendments in this update were effective beginning January 1, 2019 and were applied prospectively to hedging instruments. The adoption did not have an impact on the financial statements or disclosures of NW Holdings or NW Natural.

GOODWILL. On January 26, 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment." The ASU removes Step 2 from the goodwill impairment test and under the amended guidance an entity should perform its annual goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount in which the carrying amounts exceed the fair value of the reporting unit. The amendments in this standard are effective for us beginning January 1, 2020 and early adoption is permitted for interim or annual goodwill impairment tests performed after January 1, 2017. NW Natural early adopted ASU 2017-04 in the quarter ended September 30, 2018. The adoption of this ASU did not materially affect the financial statements and disclosures of NW Holdings or NW Natural.

LEASES. On February 25, 2016, the FASB issued ASU 2016-02, "Leases," which revises the existing lease accounting guidance. Pursuant to the new standard ("ASC 842"), lessees are required to recognize all leases, including operating leases that are greater than 12 months at lease commencement, on the balance sheet and record corresponding right of use assets and lease liabilities. Lessor accounting will remain substantially the same under the new standard. Quantitative and qualitative disclosures are also required for users of the financial statements to have a clear understanding of the nature of our leasing activities.

We elected the alternative prospective transition approach for adoption beginning January 1, 2019. All comparative periods prior to January 1, 2019 will retain the financial reporting and disclosure requirements of ASC 840 "Leases" ("ASC 840"). There was no cumulative effect adjustment to the opening balance of retained earnings recorded as of January 1, 2019 for adoption as there were no initial direct costs or other capitalized costs related to the legacy leases that needed to be derecognized upon adoption of ASC 842.

We elected the land easement optional practical expedient to not evaluate existing or expired land easements that were not previously accounted for as leases under the ASC 840 lease guidance. For the existing lease portfolio, we did not elect the optional practical expedient package to retain the legacy lease accounting conclusions upon adoption; we re-assessed our existing contracts under the new leasing standard including whether the contract meets the definition of a lease and lease classification. As a result, we determined that most of our underground gas storage contracts no longer meet the definition of a lease under the new lease standard. Our lease portfolio under the new standard consists primarily of our current leased headquarters, which expires in 2020.

In October 2017, NW Natural entered into a 20-year operating lease agreement commencing in 2020 for a new headquarters location in Portland, Oregon. The lease was analyzed under ASC 840 in consideration of build-to-suit lease accounting guidance with the conclusion that NW Natural was the owner of the asset during construction for accounting purposes. Under the new lease standard, ASC 842, NW Natural is no longer considered the owner of the asset during construction for accounting purposes. As such, in January 2019 we derecognized the build-to-suit asset and liability balances of $26.0 million as of December 31, 2018 that were previously recorded within property, plant and equipment and other non-current liabilities in the consolidated balance sheet.

Upon adoption on January 1, 2019, NW Holdings recorded an operating lease right of use asset and an associated operating lease liability of approximately $7.3 million, of which $7.0 million was recorded at NW Natural. Lease liabilities are measured using NW Natural's incremental borrowing rate based on information available at the lease commencement date in determining the present value of lease payments. See Note 7.

CLOUD COMPUTING. On August 29, 2018, the FASB issued ASU 2018-15, "Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." The purpose of the amendment is to align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The amendments in this update are effective for us beginning January 1, 2020. Early adoption is permitted, and NW Holdings and NW Natural early adopted ASU 2018-15 in the quarter ended March 31, 2019 utilizing the prospective application methodology. The adoption of this ASU did not materially affect the financial statements and disclosures of NW Holdings or NW Natural.

Recently Issued Accounting Pronouncements

RETIREMENT BENEFITS. On August 28, 2018, the FASB issued ASU 2018-14, "Changes to the Disclosure Requirements for Defined Benefit Plans." The purpose of the amendment is to modify the disclosure requirements for defined benefit pension and other postretirement plans. The amendments in this update are effective for us beginning January 1, 2020. Early adoption is permitted. The amended presentation and disclosure guidance should be applied retrospectively. We do not expect this ASU to materially affect the financial statements and disclosures of NW Holdings or NW Natural.

FAIR VALUE MEASUREMENT. On August 28, 2018, the FASB issued ASU 2018-13, "Changes to the Disclosure Requirements for Fair Value Measurement." The purpose of the amendment is to modify the disclosure requirements for fair value measurements. The amendments in this update are effective for us beginning January 1, 2020. Early adoption is permitted. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively. All other amendments should be applied retrospectively. NW Holdings and NW Natural do not have either Level 3 fair value measurements or transfers between Level 1 or Level 2 in their current portfolios, and therefore, we do not expect this ASU to have an impact on the financial statements and disclosures of NW Holdings or NW Natural.

CREDIT LOSSES. On June 16, 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses on Financial Instruments," which applies to financial assets subject to credit losses and measured at amortized cost. The new standard will require financial assets measured at amortized cost to be presented at the net amount expected to be collected and the allowance for credit losses is to be recorded as a valuation account that is deducted from the amortized cost basis. The amendments in this update are effective beginning January 1, 2020. Early adoption is permitted for fiscal years beginning after December 15, 2018. The majority of NW Holdings' and NW Natural's financial assets are short-term in nature, such as trade receivables, and therefore, we do not expect this ASU to materially affect our financial statements and disclosures.

3. EARNINGS PER SHARE

Basic earnings per share are computed using NW Holdings' net income and the weighted average number of common shares outstanding for each period presented. Diluted earnings per share are computed in the same manner, except using the weighted average number of common shares outstanding plus the effects of the assumed exercise of stock options and the payment of estimated stock awards from other stock-based compensation plans that are outstanding at the end of each period presented. Anti-dilutive stock awards are excluded from the calculation of diluted earnings per common share.

NW Holdings' diluted earnings or loss per share are calculated as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In thousands, except per share data	2019	2018	2019	2018
Net income (loss) from continuing operations	$ (18,506)	$ (11,144)	$ 26,963	$ 30,528
Loss from discontinued operations, net of tax	(795)	(650)	(1,968)	(1,783)
Net income (loss)	$ (19,301)	$ (11,794)	$ 24,995	$ 28,745
Average common shares outstanding - basic	30,429	28,815	29,563	28,787
Additional shares for stock-based compensation plans (See Note 8)	—	—	65	59
Average common shares outstanding - diluted	30,429	28,815	29,628	28,846
Earnings (loss) from continuing operations per share of common stock:				
Basic	$ (0.61)	$ (0.39)	$ 0.91	$ 1.06
Diluted	$ (0.61)	$ (0.39)	$ 0.91	$ 1.06
Loss from discontinued operations per share of common stock:				
Basic	$ (0.02)	$ (0.02)	$ (0.07)	$ (0.06)
Diluted	$ (0.02)	$ (0.02)	$ (0.07)	$ (0.06)
Earnings (loss) per share of common stock:				
Basic	$ (0.63)	$ (0.41)	$ 0.84	$ 1.00
Diluted	$ (0.63)	$ (0.41)	$ 0.84	$ 1.00
Additional information:				
Anti-dilutive shares	69	73	1	4

4. SEGMENT INFORMATION

We primarily operate in one reportable business segment, which is NW Natural's local gas distribution business and is referred to as the NGD segment. During the second quarter of 2018, we moved forward with long-term strategic plans, which include a shift away from the California gas storage business, by entering into a Purchase and Sale Agreement that provides for the sale of all of the membership interests in Gill Ranch, subject to various regulatory approvals and closing conditions. As such, we reevaluated reportable segments and concluded that the remaining gas storage activities no longer meet the requirements of a reportable segment. Interstate Storage Services and asset management activities at the Mist gas storage facility, are now reported as other under NW Natural. NW Natural and NW Holdings also have investments and business activities not specifically related to the NGD, which are aggregated and reported as other and described below for each entity.

Natural Gas Distribution
NW Natural's local gas distribution segment is a regulated utility principally engaged in the purchase, sale, and delivery of natural gas and related services to customers in Oregon and southwest Washington. In addition to NW Natural's local gas distribution business, the NGD segment also includes the portion of the Mist underground storage facility used to serve NGD customers, the North Mist gas storage expansion in Oregon, and NWN Gas Reserves, which is a wholly-owned subsidiary of Energy Corp.

NW Natural
NW Natural's activities in Other include Interstate Storage Services and third-party asset management services for the Mist facility in Oregon, appliance retail center operations, and corporate operating and non-operating revenues and expenses that cannot be allocated to NGD operations.

Earnings from Interstate Storage Services assets are primarily related to firm storage capacity revenues. Earnings from the Mist facility also include revenue, net of amounts shared with NGD customers, from management of NGD assets at Mist and upstream pipeline capacity when not needed to serve NGD customers. Under the Oregon sharing mechanism, NW Natural retains 80% of the pre-tax income from these services when the costs of the capacity were not included in NGD rates, or 10% of the pre-tax income when the costs have been included in these rates. The remaining 20% and 90%, respectively, are recorded in a deferred regulatory account for crediting back to NGD customers.

NW Holdings

NW Holdings' activities in Other include all remaining activities not associated with NW Natural, specifically: NWN Water, which consolidates the water and wastewater operations and is pursuing other investments in the water sector through itself and wholly-owned subsidiaries; NWN Gas Storage, a wholly-owned subsidiary of NWN Energy; NWN Energy's equity investment in TWH, which is pursuing development of a cross-Cascades transmission pipeline project (TWP); and other pipeline assets in NNG Financial. For more information on TWP, see Note 14. Other also includes corporate revenues and expenses that cannot be allocated to other operations, including certain business development activities.

All prior period amounts have been retrospectively adjusted to reflect the change in reportable segments and the designation of Gill Ranch as a discontinued operation for NW Holdings, and the designation of subsidiaries previously owned by NW Natural that are now owned by NW Holdings as discontinued operations for NW Natural.

Segment Information Summary

Inter-segment transactions were immaterial for the periods presented. The following table presents summary financial information concerning the reportable segment and other of continuing operations. See Note 18 for information regarding discontinued operations for NW Holdings and NW Natural.

	Three Months Ended September 30,				
In thousands	NGD	Other (NW Natural)	NW Natural	Other (NW Holdings)	NW Holdings
2019					
Operating revenues	$ 83,063	$ 4,529	$ 87,592	$ 2,725	$ 90,317
Depreciation and amortization	22,830	244	23,074	301	23,375
Income (loss) from operations	(11,580)	2,761	(8,819)	(815)	(9,634)
Net income (loss) from continuing operations	(19,570)	1,982	(17,588)	(918)	(18,506)
Capital expenditures	60,596	644	61,240	606	61,846
2018					
Operating revenues	$ 85,077	$ 6,150	$ 91,227	$ 12	91,239
Depreciation and amortization	21,127	327	21,454	31	21,485
Income (loss) from operations	(9,780)	3,499	(6,281)	170	(6,111)
Net income (loss) from continuing operations	(11,983)	708	(11,275)	131	(11,144)
Capital expenditures	55,914	511	56,425	—	56,425

	Nine Months Ended September 30,				
In thousands	NGD	Other (NW Natural)	NW Natural	Other (NW Holdings)	NW Holdings
2019					
Operating revenues	$ 480,088	$ 14,592	$ 494,680	$ 4,428	$ 499,108
Depreciation and amortization	66,071	750	66,821	513	67,334
Income (loss) from operations	75,975	9,090	85,065	(2,556)	82,509
Net income (loss) from continuing operations	22,848	6,513	29,361	(2,398)	26,963
Capital expenditures	151,114	801	151,915	1,078	152,993
Total assets at September 30, 2019[1]	3,101,372	48,269	3,149,641	87,365	3,237,006
2018					
Operating revenues	$ 461,525	$ 17,900	$ 479,425	$ 16	$ 479,441
Depreciation and amortization	62,436	976	63,412	95	63,507
Income from operations	59,521	10,341	69,862	47	69,909
Net income from continuing operations	24,930	5,538	30,468	60	30,528
Capital expenditures	156,609	2,186	158,795	—	158,795
Total assets at September 30, 2018[1]	2,972,395	51,886	3,024,281	44,482	3,068,763
Total assets at December 31, 2018[1]	3,141,969	50,767	3,192,736	36,657	3,229,393

(1) Total assets for NW Holdings exclude assets related to discontinued operations of $14.6 million, $12.6 million, and $13.3 million as of September 30, 2019, September 30, 2018, and December 31, 2018, respectively. Total assets for NW Natural exclude assets related to discontinued operations of $61.3 million as of September 30, 2018.

Natural Gas Distribution Margin

NGD margin is a financial measure used by the Chief Operating Decision Maker (CODM), consisting of NGD operating revenues, reduced by the associated cost of gas, environmental remediation expense, and revenue taxes. The cost of gas purchased for NGD customers is generally a pass-through cost in the amount of revenues billed to regulated NGD customers. Environmental remediation expense represents collections received from customers through the environmental recovery mechanism in Oregon as well as adjustments for the environmental earnings test when applicable. This is offset by environmental remediation expense presented in operating expenses. Revenue taxes are collected from NGD customers and remitted to taxing authorities. The collections from customers are offset by the expense recognition of the obligation to the taxing authority. By subtracting cost of gas, environmental remediation expense, and revenue taxes from NGD operating revenues, NGD margin provides a key metric used by the CODM in assessing the performance of the NGD segment.

The following table presents additional segment information concerning NGD margin:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In thousands	2019	2018	2019	2018
NGD margin calculation:				
NGD distribution revenues	$ 77,916	$ 84,965	$ 472,691	$ 461,306
Other regulated services	5,147	112	7,397	219
Total NGD operating revenues	83,063	85,077	480,088	461,525
Less: NGD cost of gas	22,659	25,593	163,335	175,864
Environmental remediation	967	1,022	7,258	7,528
Revenue taxes	3,534	3,522	19,956	20,731
NGD margin	$ 55,903	$ 54,940	$ 289,539	$ 257,402

5. COMMON STOCK

During June 2019, NW Holdings completed an equity issuance consisting of an offering of 1,250,000 shares of its common stock along with a 30-day option for the underwriters to purchase an additional 187,500 shares. The offering closed on June 7, 2019 and resulted in a total issuance of 1,437,500 shares as both the initial offering and the underwriter option were fully executed. All shares were issued on June 7, 2019 at an offering price of $67.00 per share. The issuance resulted in proceeds to NW Holdings, net of $0.2 million in expenses, of $93.0 million. The issuance was executed to raise funds for general corporate purposes, including for NW Holdings' subsidiaries, that are reflected as equity transfers on occurrence. Contributions received by NW Natural were also used, in part, to repay short-term indebtedness.

6. REVENUE

The following tables present disaggregated revenue from continuing operations:

	Three Months Ended September 30,				
In thousands	NGD	Other (NW Natural)	NW Natural	Other (NW Holdings)	NW Holdings
2019					
Natural gas sales	$ 80,480	$ —	$ 80,480	$ —	$ 80,480
Gas storage revenue, net	—	2,333	2,333	—	2,333
Asset management revenue, net	—	1,208	1,208	—	1,208
Appliance retail center revenue	—	988	988	—	988
Other revenue	247	—	247	2,725	2,972
Revenue from contracts with customers	80,727	4,529	85,256	2,725	87,981
Alternative revenue	(2,607)	—	(2,607)	—	(2,607)
Leasing revenue	4,943	—	4,943	—	4,943
Total operating revenues	$ 83,063	$ 4,529	$ 87,592	$ 2,725	$ 90,317
2018					
Natural gas sales	$ 82,358	$ —	$ 82,358	$ —	$ 82,358
Gas storage revenue, net	—	2,415	2,415	—	2,415
Asset management revenue, net	—	2,714	2,714	—	2,714
Appliance retail center revenue	—	1,021	1,021	—	1,021
Other revenue	—	—	—	12	12
Revenue from contracts with customers	82,358	6,150	88,508	12	88,520
Alternative revenue	1,994	—	1,994	—	1,994
Leasing revenue	725	—	725	—	725
Total operating revenues	$ 85,077	$ 6,150	$ 91,227	$ 12	$ 91,239

	Nine Months Ended September 30,				
In thousands	NGD	Other (NW Natural)	NW Natural	Other (NW Holdings)	NW Holdings
2019					
Natural gas sales	$ 488,681	$ —	$ 488,681	$ —	$ 488,681
Gas storage revenue, net	—	7,856	7,856	—	7,856
Asset management revenue, net	—	3,174	3,174	—	3,174
Appliance retail center revenue	—	3,562	3,562	—	3,562
Other revenue	351	—	351	4,428	4,779
Revenue from contracts with customers	489,032	14,592	503,624	4,428	508,052
Alternative revenue	(16,126)	—	(16,126)	—	(16,126)
Leasing revenue	7,182	—	7,182	—	7,182
Total operating revenues	$ 480,088	$ 14,592	$ 494,680	$ 4,428	$ 499,108
2018					
Natural gas sales	$ 455,312	$ —	$ 455,312	$ —	$ 455,312
Gas storage revenue, net	—	7,189	7,189	—	7,189
Asset management revenue, net	—	6,974	6,974	—	6,974
Appliance retail center revenue	—	3,737	3,737	—	3,737
Other revenue	—	—	—	16	16
Revenue from contracts with customers	455,312	17,900	473,212	16	473,228
Alternative revenue	5,285	—	5,285	—	5,285
Leasing revenue	928	—	928	—	928
Total operating revenues	$ 461,525	$ 17,900	$ 479,425	$ 16	$ 479,441

NW Natural's revenue represents substantially all of NW Holdings' revenue and is recognized for both registrants when the obligation to customers is satisfied and in the amount expected to be received in exchange for transferring goods or providing services. Revenue from contracts with customers contains one performance obligation that is generally satisfied over time, using the output method based on time elapsed, due to the continuous nature of the service provided. The transaction price is determined by a set price agreed upon in the contract or dependent on regulatory tariffs. Customer accounts are settled on a monthly basis or paid at time of sale and based on historical experience. It is probable that we will collect substantially all of the consideration to which we are entitled.

NW Holdings and NW Natural do not have any material contract assets, as net accounts receivable and accrued unbilled revenue balances are unconditional and only involve the passage of time until such balances are billed and collected. NW Holdings and NW Natural do not have any material contract liabilities.

Revenue-based taxes are primarily franchise taxes, which are collected from NGD customers and remitted to taxing authorities. Beginning January 1, 2018, revenue taxes are included in operating revenues with an equal and offsetting expense recognized in operating expenses in the consolidated statements of comprehensive income.

Natural Gas Distribution

Natural gas sales. NW Natural's primary source of revenue is providing natural gas to customers in the NGD service territory, which includes residential, commercial, industrial and transportation customers. NGD revenue is generally recognized over time upon delivery of the gas commodity or service to the customer, and the amount of consideration received and recognized as revenue is dependent on the Oregon and Washington tariffs. Customer accounts are to be paid in full each month, and there is no right of return or warranty for services provided. Revenues include firm and interruptible sales and transportation services, franchise taxes recovered from the customer, late payment fees, service fees, and accruals for gas delivered but not yet billed (accrued unbilled revenue). The accrued unbilled revenue balance is based on estimates of deliveries during the period from the last meter reading and management judgment is required for a number of factors used in this calculation, including customer use and weather factors.

We applied the significant financing practical expedient and have not adjusted the consideration NW Natural expects to receive from NGD customers for the effects of a significant financing component as all payment arrangements are settled annually. Due to the election of the right to invoice practical expedient, we do not disclose the value of unsatisfied performance obligations as of September 30, 2019.

Alternative revenue. Weather normalization (WARM) and decoupling mechanisms are considered to be alternative revenue programs. Alternative revenue programs are considered to be contracts between NW Natural and its regulator and are excluded from revenue from contracts with customers.

Leasing revenue. Leasing revenue primarily consists of revenues from NW Natural's North Mist Storage contract with Portland General Electric (PGE) in support of PGE's gas-fired electric power generation facilities under an initial 30-year contract with options to extend, totaling up to an additional 50 years upon mutual agreement of the parties. The facility is accounted for as a sales-type lease with regulatory accounting deferral treatment. The investment is included in rate base under an established cost-of-service tariff schedule, with revenues recognized according to the tariff schedule and as such, profit upon commencement was deferred and will be amortized over the lease term. Leasing revenue also contains rental revenue from small leases of property owned by NW Natural to third parties. The majority of these transactions are accounted for as operating leases and the revenue is recognized over the term of the lease agreement. Lease revenue is excluded from revenue from contracts with customers. See Note 7.

NW Natural Other

Gas storage revenue. NW Natural's other revenue includes gas storage activity, which includes Interstate Storage Services used to store natural gas for customers. Gas storage revenue is generally recognized over time as the gas storage service is provided to the customer and the amount of consideration received and recognized as revenue is dependent on set rates defined per the storage agreements. Noncash consideration in the form of dekatherms of natural gas is received as consideration for providing gas injection services to gas storage customers. This noncash consideration is measured at fair value using the average spot rate. Customer accounts are generally paid in full each month, and there is no right of return or warranty for services provided. Revenues include firm and interruptible storage services, net of the profit sharing amount refunded to NGD customers.

Asset management revenue. Asset management revenue is generally recognized over time using a straight-line approach over the term of each contract, and the amount of consideration received and recognized as revenue is dependent on a variable pricing model. Variable revenues earned above guaranteed amounts are estimated and recognized at the end of each period using the most likely amount approach. Revenues include management services of the storage assets and pipeline capacity provided, net of the profit sharing amount refunded to NGD customers. Asset management accounts are settled on a monthly basis.

As of September 30, 2019, unrecognized revenue for the fixed component of the transaction price related to gas storage and asset management revenue was approximately $54.7 million. Of this amount, approximately $3.7 million will be recognized during the remainder of 2019, $13.7 million in 2020, $12.8 million in 2021, $9.1 million in 2022, $7.8 million in 2023 and $7.6 million thereafter. The amounts presented here are calculated using current contracted rates.

Appliance retail center revenue. NW Natural owns and operates an appliance store that is open to the public, where customers can purchase natural gas home appliances. Revenue from the sale of appliances is recognized at the point in time in which the appliance is transferred to the third party responsible for delivery and installation services and when the customer has legal title to the appliance. It is required that the sale be paid for in full prior to transfer of legal title. The amount of consideration received and recognized as revenue varies with changes in marketing incentives and discounts offered to customers.

NW Holdings Other

NW Holdings' primary source of other revenue is providing water and wastewater services to customers. Water distribution revenue is generally recognized over time upon delivery of the water commodity or service to the customer, and the amount of consideration received and recognized as revenue is dependent on the Oregon, Washington and Idaho tariffs. Customer accounts are to be paid in full each month, and there is no right of return or warranty for services provided.

We applied the significant financing practical expedient and have not adjusted the consideration we expect to receive from water distribution customers for the effects of a significant financing component as all payment arrangements are settled annually. Due to the election of the right to invoice practical expedient, we do not disclose the value of unsatisfied performance obligations as of September 30, 2019.

7. LEASES

Lease Revenue

Leasing revenue primarily consists of NW Natural's North Mist natural gas storage agreement with Portland General Electric (PGE) which is billed under an OPUC-approved rate schedule and includes an initial 30-year term with options to extend, totaling up to an additional 50 years upon mutual agreement of the parties. Under U.S. GAAP, this agreement is classified as a sales-type lease and qualifies for regulatory accounting deferral treatment. The investment in the storage facility is included in rate base under a separately established cost-of-service tariff, with revenues recognized according to the tariff schedule. As such, the selling profit that was calculated upon commencement as part of the sale-type lease recognition was deferred and will be amortized over the lease term. Billing rates under the cost-of-service tariff will be updated annually to reflect current information including depreciable asset levels, forecasted operating expenses, and the results of regulatory proceedings, as applicable, and revenue received under this agreement is recognized as operating revenue on the consolidated statements of comprehensive income. There are no variable payments or residual value guarantees. The lease does not contain an option to purchase the underlying assets.

NW Natural also maintains a sales-type lease for specialized compressor facilities to provide high pressure compressed natural gas (CNG) services. Lease payments are outlined in an OPUC-approved rate schedule over a 10-year term. There are no variable payments or residual value guarantees. The selling profit computed upon lease commencement was not significant.

Our lessor portfolio also contains small leases of property owned by NW Natural to third parties. These transactions are accounted for as operating leases and the revenue is recognized over the term of the lease agreement.

The components of lease revenue at NW Natural were as follows:

In thousands	Three months ended September 30, 2019	Nine months ended September 30, 2019
Lease revenue		
Operating leases	$ 48	$ 143
Sales-type leases	4,895	7,039
Total lease revenue	$ 4,943	$ 7,182

Total future minimum lease payments to be received under non-cancelable leases at NW Natural at September 30, 2019 are as follows:

In thousands	Operating	Sales-Type	Total
Remainder of 2019	$ 18	$ 4,841	$ 4,859
2020	61	18,229	18,290
2021	49	17,518	17,567
2022	45	17,026	17,071
2023	45	16,557	16,602
Thereafter	138	280,937	281,075
Total lease revenue	$ 356	$ 355,108	$ 355,464
Less: imputed interest		205,596	
Total leases receivable		$ 149,512	

The total leases receivable above is reported under the NGD segment and the short- and long-term portions are included within other current assets and assets under sales-type leases on the consolidated balance sheets, respectively. The total amount of unguaranteed residual assets at September 30, 2019 was $3.9 million and is included in assets under sales-type leases on the consolidated balance sheets. Additionally, under regulatory accounting, the revenues and expenses associated with these agreements are presented on the consolidated statements of comprehensive income such that their presentation aligns with similar regulated activities at NW Natural.

Lease Expense

Operating Leases

We have operating leases for land, buildings and equipment. Our primary lease is for NW Natural's headquarters. Our leases have remaining lease terms of one year to 11 years. Many of our lease agreements include options to extend the lease, which we do not include in our minimum lease terms unless they are reasonably certain to be exercised. Short-term leases with a term of 12 months or less are not recorded on the balance sheet.

As most of our leases do not provide an implicit rate and are entered into by NW Natural, we use NW Natural's incremental borrowing rate based on information available at the lease commencement date in determining the present value of lease payments.

The components of lease expense, a portion of which is capitalized, were as follows:

	Three months ended September 30, 2019		
In thousands	NW Natural	Other (NW Holdings)	NW Holdings
Operating lease expense	$ 1,158	$ 47	$ 1,205
Short-term lease expense	323	—	323

	Nine months ended September 30, 2019		
In thousands	NW Natural	Other (NW Holdings)	NW Holdings
Operating lease expense	$ 3,455	$ 139	$ 3,594
Short-term lease expense	814	—	814

Supplemental balance sheet information related to operating leases as of September 30, 2019 is as follows:

In thousands	NW Natural	Other (NW Holdings)	NW Holdings
Operating lease right of use asset	$ 3,745	$ 172	$ 3,917
Operating lease liabilities - current liabilities	$ 3,075	$ 96	$ 3,171
Operating lease liabilities - non-current liabilities	654	78	732
Total operating lease liabilities	$ 3,729	$ 174	$ 3,903

As of September 30, 2019, the weighted average remaining lease term for the operating leases is less than one year for NW Natural. The weighted average discount rate used in the valuation of the operating lease right of use assets over the remaining lease term is 3.86% for NW Natural.

Maturities of operating lease liabilities at September 30, 2019 were as follows:

In thousands	NW Natural	Other (NW Holdings)	NW Holdings
Remainder of 2019	$ 1,157	$ 48	$ 1,205
2020	2,013	102	2,115
2021	126	28	154
2022	93	—	93
2023	71	—	71
Thereafter	497	—	497
Total lease payments	3,957	178	4,135
Less: imputed interest	228	4	232
Total lease obligations	3,729	174	3,903
Less: current obligations	3,075	96	3,171
Long-term lease obligations	$ 654	$ 78	$ 732

Significant Lease Not Yet Commenced

In October 2017, NW Natural entered into a 20-year operating lease agreement for a new headquarters in Portland, Oregon in anticipation of the expiration of the current headquarters lease in 2020. The lease is expected to commence in late 2019 or early 2020 upon substantial completion of the landlord's work. Total estimated base rent payments over the life of the lease are approximately $160 million. There is an option to extend the term of the lease for two additional periods of seven years.

Cash Flow Information

Supplemental cash flow information related to leases was as follows:

In thousands	Three months ended September 30, 2019 NW Natural	Other (NW Holdings)	NW Holdings
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash flows from operating leases	$ 1,113	$ 45	$ 1,158

	Nine months ended September 30, 2019 NW Natural	Other (NW Holdings)	NW Holdings
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash flows from operating leases	$ 3,319	$ 132	$ 3,451
Right of use assets obtained in exchange for lease obligations			
Operating leases	$ 7,054	$ 304	$ 7,358

Finance Leases

NW Natural also leases building storage spaces for use as a gas meter room in order to provide natural gas to multifamily or mixed use developments. These contracts are accounted for as finance leases and typically involve a one-time upfront payment with no remaining liability. The right of use asset for finance leases was $0.3 million at September 30, 2019.

Lease Disclosures Related to Periods Prior to the First Quarter of 2019

Land, buildings, and equipment are leased under agreements that expire in various years, including a 99-year land lease that extends through 2108. Rental costs for continuing operations were $5.9 million, $7.3 million, and $5.9 million for the years ended December 31, 2018, 2017, and 2016, respectively, a portion of which was capitalized.

The following table reflects NW Natural's future minimum lease payments due under non-cancelable operating leases for continuing operations at December 31, 2018. These commitments relate principally to the lease of the office headquarters and underground gas storage facilities.

In thousands	Minimum lease payments
2019	$ 5,368
2020	4,812
2021	7,077
2022	7,223
2023	7,304
Thereafter	149,881
Total	$ 181,665

8. STOCK-BASED COMPENSATION

Stock-based compensation plans are designed to promote stock ownership in NW Holdings by employees and officers. These compensation plans include a Long Term Incentive Plan (LTIP), an Employee Stock Purchase Plan (ESPP), and a Restated Stock Option Plan. For additional information on stock-based compensation plans, see Note 7 in the 2018 Form 10-K and the updates provided below.

Long Term Incentive Plan

Performance Shares

LTIP performance shares incorporate a combination of market, performance, and service-based factors. During the nine months ended September 30, 2019, no performance-based shares were granted under the LTIP for accounting purposes. In February 2019 and 2018, LTIP shares were awarded to participants; however, the agreements allow for one of the performance factors to remain variable until the first quarter of the third year of the award period. As the performance factor will not be approved until the first quarters of 2021 and 2020, respectively, there is not a mutual understanding of the awards' key terms and conditions between NW Holdings and the participants as of September 30, 2019, and therefore, no expense was recognized for the 2019 and 2018 awards. NW Holdings will calculate the grant date fair value and NW Natural and other subsidiaries will recognize expense over the remaining service period for each award once the final performance factor has been approved.

For the 2019 and 2018 LTIP awards, share payouts range from a threshold of 0% to a maximum of 200% based on achievement of pre-established goals. The performance criteria for the 2019 and 2018 performance shares consists of a three-year Return on Invested Capital (ROIC) threshold that must be satisfied and a cumulative EPS factor, which can be modified by a total shareholder return factor (TSR modifier) relative to the performance of the Russell 2500 Utilities Index over the performance period of three years for each respective award. If the targets were achieved for the 2019 and 2018 awards, NW Holdings would grant 35,170 and 31,825 shares in the first quarters of 2021 and 2020, respectively.

As of September 30, 2019, there was $0.4 million of unrecognized compensation cost associated with the 2017 LTIP grants, which is expected to be recognized through 2019.

Restricted Stock Units
During the nine months ended September 30, 2019, 33,458 RSUs were granted, net of forfeitures, under the LTIP with a weighted-average grant date fair value of $65.32 per share. Generally, the RSUs awarded are forfeitable and include a performance-based threshold as well as a vesting period of four years from the grant date. The majority of our RSU grants obligate NW Holdings, upon vesting, to issue the RSU holder one share of common stock. The grant may also include a cash payment equal to the total amount of dividends paid per share between the grant date and vesting date of that portion of the RSU depending on the structure of the award agreement. The fair value of an RSU is equal to the closing market price of common stock on the grant date. As of September 30, 2019, there was $3.7 million of unrecognized compensation cost from grants of RSUs, which is expected to be recognized by NW Natural and other subsidiaries over a period extending through 2024.

9. DEBT

Short-Term Debt
At September 30, 2019, NW Holdings had short-term debt outstanding of $65.6 million and NW Natural had $45.5 million of commercial paper outstanding, respectively. The carrying cost of commercial paper approximates fair value using Level 2 inputs. See Note 2 in the 2018 Form 10-K for a description of the fair value hierarchy. At September 30, 2019, NW Natural's commercial paper had a maximum remaining maturity of eight days and average remaining maturity of four days.

Long-Term Debt
At September 30, 2019, NW Holdings and NW Natural had long-term debt outstanding of $900.7 million and $863.6 million, respectively, which included $6.1 million of unamortized debt issuance costs at NW Natural. NW Natural's long-term debt consists of first mortgage bonds (FMBs) with maturity dates ranging from 2019 through 2049, interest rates ranging from 2.822% to 9.050%, and a weighted average interest rate of 4.745%.

In June 2019, NW Natural issued $90.0 million of FMBs with an interest rate of 3.869%, due in 2049 and $50.0 million of FMBs with an interest rate of 3.141%, due in 2029. In September 2019, NW Natural retired $10.0 million of FMBs with an interest rate of 8.310%.

In June 2019, NW Natural Water, a wholly-owned subsidiary of NW Holdings, entered into a new two-year term loan agreement for $35.0 million, due in 2021. The loan carried an interest rate of 2.65% at September 30, 2019, which is based upon the three-month LIBOR rate. The loan is guaranteed by NW Holdings and requires NW Holdings to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Holdings was in compliance with this covenant at September 30, 2019, with a consolidated indebtedness to total capitalization ratio of 53.4%.

Fair Value of Long-Term Debt
NW Holdings' and NW Natural's outstanding debt does not trade in active markets. The fair value of long-term debt is estimated using the value of outstanding debt at natural gas distribution companies with similar credit ratings, terms, and remaining maturities to NW Holdings' and NW Natural's debt that actively trade in public markets. Substantially all outstanding debt at NW Holdings is comprised of NW Natural debt. These valuations are based on Level 2 inputs as defined in the fair value hierarchy. See Note 2 in the 2018 Form 10-K for a description of the fair value hierarchy.

The following table provides an estimate of the fair value of NW Holdings' long-term debt, including current maturities of long-term debt, using market prices in effect on the valuation date:

	NW Holdings		
	September 30,		December 31,
In thousands	2019	2018	2018
Gross long-term debt	$ 906,757	$ 815,534	$ 741,813
Unamortized debt issuance costs	(6,072)	(5,940)	(5,577)
Carrying amount	$ 900,685	$ 809,594	$ 736,236
Estimated fair value[1]	$ 997,096	$ 834,796	$ 762,335

[1] Estimated fair value does not include unamortized debt issuance costs.

The following table provides an estimate of the fair value of NW Natural's long-term debt, including current maturities of long-term debt, using market prices in effect on the valuation date:

	NW Natural		
	September 30,		December 31,
In thousands	2019	2018	2018
Gross long-term debt	$ 869,700	$ 814,700	$ 739,700
Unamortized debt issuance costs	(6,072)	(5,940)	(5,577)
Carrying amount	$ 863,628	$ 808,760	$ 734,123
Estimated fair value[1]	$ 959,906	$ 833,962	$ 760,222

[1] Estimated fair value does not include unamortized debt issuance costs.

10. PENSION AND OTHER POSTRETIREMENT BENEFIT COSTS

NW Natural maintains a qualified non-contributory defined benefit pension plan, non-qualified supplemental pension plans for eligible executive officers and other key employees, and other postretirement employee benefit plans. NW Natural also has a qualified defined contribution plan (Retirement K Savings Plan) for all eligible employees. The qualified defined benefit pension plan and Retirement K Savings Plan have plan assets, which are held in qualified trusts to fund retirement benefits.

The service cost component of net periodic benefit cost for NW Natural pension and other postretirement benefit plans is recognized in operations and maintenance expense in the consolidated statements of comprehensive income. The other non-service cost components are recognized in other income (expense), net in the consolidated statements of comprehensive income.

The following table provides the components of net periodic benefit cost for the pension and other postretirement benefit plans:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	Pension Benefits		Other Postretirement Benefits		Pension Benefits		Other Postretirement Benefits	
In thousands	2019	2018	2019	2018	2019	2018	2019	2018
Service cost	$ 1,516	$ 1,757	$ 67	$ 80	$ 4,549	$ 5,371	$ 202	$ 239
Interest cost	4,662	4,336	281	241	13,985	12,702	845	723
Expected return on plan assets	(5,207)	(5,143)	—	—	(15,621)	(15,444)	—	—
Amortization of prior service costs	1	11	(117)	(117)	5	32	(351)	(351)
Amortization of net actuarial loss	3,604	5,650	97	110	10,810	14,697	290	332
Net periodic benefit cost	4,576	6,611	328	314	13,728	17,358	986	943
Amount allocated to construction	(608)	(659)	(25)	(27)	(1,790)	(2,026)	(72)	(82)
Amount deferred to regulatory balancing account	—	(3,878)	—	—	—	(9,381)	—	—
Net periodic benefit cost charged to expense	3,968	2,074	303	287	11,938	5,951	914	861
Regulatory pension disallowance	—	—	—	—	10,500	—	—	—
Amortization of regulatory balancing account	675	—	—	—	14,467	—	—	—
Net amount charged to expense	$ 4,643	$ 2,074	$ 303	$ 287	$ 36,905	$ 5,951	$ 914	$ 861

The service cost component of net periodic benefit costs is reduced by amounts capitalized to NGD plant based on an approximately 25% to 35% payroll overhead charge. In addition, a certain amount of net periodic benefit costs were recorded to the regulatory balancing account, representing net periodic pension expense for the qualified plan above the amount set in rates, as approved by the OPUC, from 2011 through October 31, 2018.

In March 2019, the OPUC issued an order concluding the NW Natural 2018 Oregon rate case. The Order allowed for the application of certain deferred revenues and tax benefits from the TCJA to reduce NW Natural's pension regulatory balancing account. A corresponding total of $12.5 million in pension expenses were recognized in operating and maintenance expense and other income (expense), net in the consolidated statements of comprehensive income in the first quarter of 2019, with offsetting benefits recorded within operating revenues and income taxes. The Order also directed NW Natural to reduce the balancing account by an additional $10.5 million, which was also charged to operating and maintenance expense and other income (expense), net in the consolidated statements of comprehensive income. Amortization of the remaining amount of the balancing account began in the second quarter of 2019 in accordance with the Order.

The following table presents amounts recognized in accumulated other comprehensive loss (AOCL) and the changes in AOCL related to non-qualified employee benefit plans:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In thousands	2019	2018	2019	2018
Beginning balance	$ (8,324)	$ (8,131)	$ (7,188)	$ (8,438)
Amounts reclassified from AOCL:				
Amortization of actuarial losses	157	209	469	627
Reclassification of stranded tax effects[1]	—	—	(1,366)	—
Total reclassifications before tax	157	209	(897)	627
Tax (benefit) expense	(43)	(55)	(125)	(166)
Total reclassifications for the period	114	154	(1,022)	461
Ending balance	$ (8,210)	$ (7,977)	$ (8,210)	$ (7,977)

(1) Reclassification of $1.4 million of income tax effects resulting from the TCJA from accumulated other comprehensive loss to retained earnings was made pursuant to the adoption of ASU 2018-02. See Note 2.

Employer Contributions to Company-Sponsored Defined Benefit Pension Plans

For the nine months ended September 30, 2019, NW Natural made cash contributions totaling $7.8 million to qualified defined benefit pension plans. NW Natural expects further plan contributions of $3.2 million during the remainder of 2019.

Defined Contribution Plan
The Retirement K Savings Plan is a qualified defined contribution plan under Internal Revenue Code Sections 401(a) and 401(k). Employer contributions totaled $5.3 million and $5.0 million for the nine months ended September 30, 2019 and 2018, respectively.

See Note 9 in the 2018 Form 10-K for more information concerning these retirement and other postretirement benefit plans.

11. INCOME TAX

An estimate of annual income tax expense is made each interim period using estimates for annual pre-tax income, regulatory flow-through adjustments, tax credits, and other items. The estimated annual effective tax rate is applied to year-to-date, pre-tax income to determine income tax expense for the interim period consistent with the annual estimate. Discrete events are recorded in the interim period in which they occur or become known.

The effective income tax rate varied from the combined federal and state statutory tax rates due to the following:

	Three Months Ended September 30,			
	NW Holdings		NW Natural	
In thousands	2019	2018	2019	2018
Income taxes at statutory rates (federal and state)	$ (6,507)	$ (4,136)	$ (6,177)	$ (4,183)
Increase (decrease):				
Differences required to be flowed-through by regulatory commissions	2,090	(266)	2,090	(266)
Other, net	74	117	74	116
Total provision for income taxes on continuing operations	$ (4,343)	$ (4,285)	$ (4,013)	$ (4,333)
Effective tax rate for continuing operations	19.0%	27.8%	18.6%	27.8%

	Nine Months Ended September 30,			
	NW Holdings		NW Natural	
In thousands	2019	2018	2019	2018
Income taxes at statutory rates (federal and state)	$ 8,500	$ 11,097	$ 9,363	$ 11,081
Increase (decrease):				
Differences required to be flowed-through by regulatory commissions	(3,207)	569	(3,207)	569
Other, net	(336)	(475)	(336)	(476)
Total provision for income taxes on continuing operations	$ 4,957	$ 11,191	$ 5,820	$ 11,174
Effective tax rate for continuing operations	15.5%	26.8%	16.5%	26.8%

The NW Holdings and NW Natural effective income tax rates for the three and nine months ended September 30, 2019 compared to the same periods in 2018 changed primarily as a result of regulatory amortization of deferred TCJA benefits as approved in the March 2019 OPUC order. See "*U.S. Federal TCJA Matters"* below and Note 10 in the 2018 Form 10-K for more detail on income taxes and effective tax rates.

The IRS Compliance Assurance Process (CAP) examination of the 2017 tax year was completed during the first quarter of 2019. There were no material changes to the return as filed. The 2018 tax year is subject to examination under CAP and the 2019 tax year CAP application has been accepted by the IRS. The Oregon State examination of tax years 2015, 2016, and 2017 was completed in January 2019. There were no material changes to the returns as originally filed.

U.S. Federal TCJA Matters
On December 22, 2017, the TCJA was enacted and permanently lowered the U.S. federal corporate income tax rate to 21% from the previous maximum rate of 35%, effective for the tax year beginning January 1, 2018. The TCJA included specific provisions related to regulated public utilities that provide for the continued deductibility of interest expense and the elimination of bonus tax depreciation for property both acquired and placed into service on or after January 1, 2018. See Note 10 in the 2018 Form 10-K.

NW Natural previously filed applications with the OPUC and WUTC to defer the NGD net income tax benefits resulting from the TCJA. In March 2019, the OPUC issued an order addressing the regulatory amortization of the income tax benefits from the TCJA that NW Natural deferred for Oregon customers in December of 2017. Under the order, NW Natural will provide the benefit of these TCJA income tax deferrals to Oregon customers through ongoing annual credits to customer base rates and as a one-time recovery of a portion of the pension balancing account regulatory asset balance. On an annualized basis, it is anticipated that the income tax benefits from the provision of these TCJA benefits to customers should approximate the reduction to pretax income that occurs as a result of the customer base rate credits and one-time recovery of a portion of the pension balancing account.

In October 2019, the WUTC issued an order addressing the regulatory amortization of the income tax benefits from the TCJA that NW Natural deferred for Washington customers in December of 2017. Under the order, NW Natural will provide deferred income tax benefits from the TCJA to customers through base rate credits for a five-year period beginning November 1, 2019.

12. PROPERTY, PLANT, AND EQUIPMENT

The following table sets forth the major classifications of property, plant, and equipment and accumulated depreciation of continuing operations:

	September 30,		December 31,
In thousands	2019	2018	2018
NW Natural:			
NGD plant in service	$ 3,236,227	$ 3,068,235	$ 3,134,122
NGD work in progress	91,302	227,200	204,978
Less: Accumulated depreciation	1,007,742	978,446	974,252
NGD plant, net	2,319,787	2,316,989	2,364,848
Other plant in service	63,360	65,957	66,009
Other construction work in progress	6,164	5,505	5,330
Less: Accumulated depreciation	18,889	18,335	18,603
Other plant, net (1)	50,635	53,127	52,736
Total property, plant, and equipment	$ 2,370,422	$ 2,370,116	$ 2,417,584
Other (NW Holdings):			
Other plant in service	$ 19,665	$ 3,491	$ 4,051
Less: Accumulated depreciation	699	213	263
Other plant, net (1)	$ 18,966	$ 3,278	$ 3,788
NW Holdings:			
Total property, plant, and equipment	$ 2,389,388	$ 2,373,394	$ 2,421,372
NW Natural and NW Holdings:			
Capital expenditures in accrued liabilities	$ 35,461	$ 27,692	$ 23,676

(1) NW Natural previously reported other balances were restated due to certain assets and liabilities now being classified as discontinued operations assets and liabilities in its balance sheets. See Note 18 for further discussion.

<u>NW Holdings</u>
Other plant balances include long-lived assets associated with water operations and non-regulated activities not held by NW Natural or its subsidiaries.

<u>NW Natural</u>
Other plant balances include long-lived assets not related to NGD.

In October 2017, NW Natural entered into a 20-year operating lease agreement expected to commence in 2020 for its new headquarters location in Portland, Oregon. Under the new lease standard, NW Natural is no longer considered the accounting owner of the asset during construction. As such, the build to suit asset and liability balances at December 31, 2018 of $26.0 million were derecognized in January 2019. The previous build to suit balances were recorded under ASC 840 within property, plant and equipment and other non-current liabilities in the consolidated balance sheet. See Note 16 in the 2018 Form 10-K.

In May 2019, NW Natural placed its North Mist gas storage expansion project into service and commenced storage services to the facility's single customer, Portland General Electric (PGE). Under U.S. GAAP, this agreement is classified as a sales-type lease and qualifies for regulatory accounting deferral treatment. Accordingly, the project was de-recognized from property, plant and equipment upon lease commencement and the investment balance is presented net of the current portion of scheduled billings within assets under sales-type leases on the consolidated balance sheets. A total of $146.0 million was de-recognized from plant on the lease commencement date. See Note 7 for information regarding leases, including North Mist.

13. GAS RESERVES

NW Natural has invested $188 million through the gas reserves program in the Jonah Field located in Wyoming as of September 30, 2019. Gas reserves are stated at cost, net of regulatory amortization, with the associated deferred tax benefits recorded as liabilities in the consolidated balance sheets. The investment in gas reserves provides long-term price protection for NGD customers through the original agreement with Encana Oil & Gas (USA) Inc. under which NW Natural invested $178 million and the amended agreement with Jonah Energy LLC under which an additional $10 million was invested.

The cost of gas, including a carrying cost for the rate base investment, is included in the annual Oregon PGA filing, which allows NW Natural to recover these costs through customer rates. The investment under the original agreement, less accumulated amortization and deferred taxes, earns a rate of return. See Note 12 in the 2018 Form 10-K.

Gas produced from the additional wells is included in the Oregon PGA at a fixed rate of $0.4725 per therm, which approximates the 10-year hedge rate plus financing costs at the inception of the investment.

The following table outlines NW Natural's net gas reserves investment:

	September 30,		December 31,
In thousands	2019	2018	2018
Gas reserves, current	$ 16,392	$ 16,916	$ 16,647
Gas reserves, non-current	170,915	170,391	170,660
Less: Accumulated amortization	118,937	99,835	104,463
Total gas reserves[1]	68,370	87,472	82,844
Less: Deferred taxes on gas reserves	13,293	19,377	20,071
Net investment in gas reserves	$ 55,077	$ 68,095	$ 62,773

(1) The net investment in additional wells included in total gas reserves was $4.0 million, $5.0 million and $4.8 million at September 30, 2019 and 2018 and December 31, 2018, respectively.

NW Natural's investment is included in NW Holdings' and NW Natural's consolidated balance sheets under gas reserves with the maximum loss exposure limited to the investment balance.

14. INVESTMENTS

Investments in Gas Pipeline
Trail West Pipeline, LLC (TWP), a wholly-owned subsidiary of TWH, is pursuing the development of a new gas transmission pipeline that would provide an interconnection with NW Natural's NGD system. NWN Energy, a wholly-owned subsidiary of NW Holdings, owns 50% of TWH, and 50% is owned by TransCanada American Investments Ltd., an indirect wholly-owned subsidiary of TransCanada Corporation.

Variable Interest Entity (VIE) Analysis
TWH is a VIE, with NW Holdings' investment in TWP reported under equity method accounting. It has been determined that NW Holdings is not the primary beneficiary of TWH’s activities as it only has a 50% share of the entity, and there are no stipulations that allow NW Holdings a disproportionate influence over it. Investments in TWH and TWP are included in other investments in NW Holdings' balance sheet. If this investment is not developed, then the maximum loss exposure related to TWH is limited to NW Holdings' equity investment balance, less its share of any cash or other assets available to NW Holdings as a 50% owner. The investment balance in TWH was $13.4 million at September 30, 2019 and 2018 and December 31, 2018. See Note 13 in the 2018 Form 10-K.

Other Investments
Other investments include financial investments in life insurance policies, which are accounted for at cash surrender value, net of policy loans. See Note 13 in the 2018 Form 10-K.

15. BUSINESS COMBINATIONS

2019 Business Combinations
Sunriver
On May 31, 2019, NWN Water of Oregon, a wholly-owned indirect subsidiary of NW Holdings, completed the acquisition of Sunriver Water, LLC and Sunriver Environmental, LLC (collectively referred to as Sunriver), a privately-owned water utility and wastewater treatment company located in Sunriver, Oregon that serves approximately 9,400 connections. The acquisition-date fair value of the total consideration transferred, after closing adjustments, was approximately $55.0 million in cash consideration. The transaction aligns with NW Holdings' water sector strategy as it continues to expand its water utility service territory in the Pacific Northwest and begins to pursue wastewater investment opportunities.

The Sunriver acquisition met the criteria of a business combination, and as such a preliminary allocation of the consideration to the acquired assets based on their estimated fair value as of the acquisition date was performed. In accordance with U.S. GAAP, the fair value determination was made using existing market and regulatory conditions as well as standard valuation approaches in order to allocate value as determined by an independent third party assessor for certain assets, with the remaining difference from the consideration transferred being recorded as goodwill. This allocation is considered preliminary as of September 30, 2019, as facts and circumstances that existed as of the acquisition date may be discovered as we continue to integrate Sunriver. As a result, subsequent adjustments to the preliminary valuation of tangible assets, contract assets and liabilities, tax positions, and goodwill may be required. Subsequent adjustments are not expected to be significant, and any such adjustments are expected to be completed within the one-year measurement period. The acquisition costs were expensed as incurred.

Preliminary goodwill of $39.9 million was recognized from this acquisition. The goodwill recognized is attributable to Sunriver's regulated water utility service territory, experienced workforce, and the strategic benefits for both the water utility and wastewater services expected from growth in its service territory. No intangible assets aside from goodwill were acquired. The total amount of goodwill that is expected to be deductible for income tax purposes is approximately $50.2 million.

The preliminary purchase price for the acquisition has been allocated to the net assets acquired as of the acquisition date and is as follows:

In thousands		May 31, 2019
Current assets	$	222
Property, plant and equipment		14,009
Goodwill		39,912
Deferred tax assets		828
Current liabilities		(22)
Total net assets acquired	$	54,949

The amount of Sunriver revenues included in NW Holdings' consolidated statements of comprehensive income is $1.7 million and $2.3 million for the three and nine months ended September 30, 2019, respectively. Earnings from Sunriver activities for the three and nine months ended September 30, 2019 were not material to the results of NW Holdings.

Other Acquisitions
During the nine months ended September 30, 2019, NWN Water completed two additional acquisitions qualifying as business combinations. The aggregate fair value of the preliminary consideration transferred for these acquisitions was approximately $1.4 million. These business combinations were not significant to NW Holdings' results of operations.

2018 Business Combinations
Falls Water
On September 13, 2018, NWN Water, then a wholly-owned subsidiary of NW Natural and now a wholly-owned subsidiary of NW Holdings, completed the acquisition of Falls Water Co., Inc. (Falls Water), a privately-owned water utility in the Pacific Northwest for non-cash consideration of $8.5 million in the form of 125,000 shares of NW Natural common stock, which were converted to NW Holdings common stock in our October 1, 2018 reorganization. Falls Water became a wholly-owned subsidiary of NWN Water and marked its first acquisition in the water utility sector. This acquisition aligns with NW Holdings' water sector strategy as the acquisition provides NWN Water entry into Idaho, expands service area, and opens further opportunity for growth. Falls Water is based in Idaho Falls, Idaho and served approximately 5,300 connections at the time of acquisition.

Through the purchase of all of the outstanding shares of Falls Water, NWN Water acquired the net assets and 100% control of Falls Water. We determined that the Falls Water acquisition met the criteria of a business combination, and as such performed a preliminary allocation of the consideration to the acquired assets and assumed liabilities based on their fair value as of the acquisition date, the majority of which was allocated to goodwill. The acquisition costs were insignificant and were expensed as incurred. The results of Falls Water are not material to the consolidated financial results of NW Holdings.

Goodwill of $6.2 million was recognized from this acquisition and is attributable to Falls Water's regulated service territory and experienced workforce as well as the strategic benefits expected from this high-growth service territory. NW Holdings has included this goodwill in other for segment reporting purposes, and it is not deductible for income tax purposes. No intangible assets aside from goodwill were acquired.

Other Acquisitions
During 2018, in addition to the Falls Water acquisition, NWN Water completed three acquisitions qualifying as business combinations. The aggregate fair value of the preliminary consideration transferred for these acquisitions was approximately $2.8 million. These business combinations, both individually and in aggregate, were not significant to NW Holdings' results of operations.

Goodwill
NW Holdings allocates goodwill to reporting units based on the expected benefit from the business combination. We perform an annual impairment assessment of goodwill at the reporting unit level, or more frequently if events and circumstances indicate that goodwill might be impaired. An impairment loss is recognized if the carrying value of a reporting unit's goodwill exceeds its fair value.

As a result of all acquisitions completed, total goodwill was $49.3 million as of September 30, 2019 and $9.0 million as of December 31, 2018. The increase in the goodwill balance was due to additions associated with our acquisitions in the water sector. All of our goodwill is related to water and wastewater acquisitions and is included in the other category for segment reporting purposes. The annual impairment assessment of goodwill occurs in the fourth quarter of each year. There have been no impairments recognized to date.

16. DERIVATIVE INSTRUMENTS

NW Natural enters into financial derivative contracts to hedge a portion of the NGD segment's natural gas sales requirements. These contracts include swaps, options and combinations of option contracts. These derivative financial instruments are primarily used to manage commodity price variability. A small portion of NW Natural's derivative hedging strategy involves foreign currency exchange contracts.

NW Natural enters into these financial derivatives, up to prescribed limits, primarily to hedge price variability related to physical gas supply contracts as well as to hedge spot purchases of natural gas. The foreign currency forward contracts are used to hedge the fluctuation in foreign currency exchange rates for pipeline demand charges paid in Canadian dollars.

In the normal course of business, NW Natural also enters into indexed-price physical forward natural gas commodity purchase contracts and options to meet the requirements of NGD customers. These contracts qualify for regulatory deferral accounting treatment.

NW Natural also enters into exchange contracts related to the third-party asset management of its gas portfolio, some of which are derivatives that do not qualify for hedge accounting or regulatory deferral, but are subject to NW Natural's regulatory sharing agreement. These derivatives are recognized in operating revenues, net of amounts shared with NGD customers.

Notional Amounts
The following table presents the absolute notional amounts related to open positions on NW Natural derivative instruments:

	September 30,		December 31,
In thousands	2019	2018	2018
Natural gas (in therms):			
Financial	752,090	513,850	408,850
Physical	751,950	760,925	472,275
Foreign exchange	$ 6,446	$ 7,184	$ 6,936

Purchased Gas Adjustment (PGA)
Derivatives entered into by NW Natural for the procurement or hedging of natural gas for future gas years generally receive regulatory deferral accounting treatment. In general, commodity hedging for the current gas year is completed prior to the start of the gas year, and hedge prices are reflected in weighted-average cost of gas in the PGA filing. Hedge contracts entered into after the start of the PGA period are subject to the PGA incentive sharing mechanism in Oregon. NW Natural entered the 2018-19 and 2017-18 gas years with forecasted sales volumes hedged at 48% and 49% in financial swap and option contracts, and 24% and 26% in physical gas supplies, respectively. Hedge contracts entered into prior to the PGA filing in September 2018 were included in the PGA for the 2018-19 gas year. Hedge contracts entered into after the PGA filing, and related to subsequent gas years, may be included in future PGA filings and qualify for regulatory deferral.

Unrealized and Realized Gain/Loss

The following table reflects the income statement presentation for the unrealized gains and losses from NW Natural's derivative instruments, which also represents all derivative instruments at NW Holdings:

	Three Months Ended September 30,			
	2019		2018	
In thousands	Natural gas commodity	Foreign exchange	Natural gas commodity	Foreign exchange
Benefit (expense) to cost of gas	$ 2,391	$ (133)	$ 4,473	$ 210
Operating revenues (expense)	2,002	—	(286)	—
Amounts deferred to regulatory accounts on balance sheet	(4,102)	133	(4,285)	(210)
Total gain (loss) in pre-tax earnings	$ 291	$ —	$ (98)	$ —

	Nine Months Ended September 30,			
	2019		2018	
In thousands	Natural gas commodity	Foreign exchange	Natural gas commodity	Foreign exchange
Benefit (expense) to cost of gas	$ 4,255	$ 24	$ 1,384	$ —
Operating revenues (expense)	36	—	(122)	—
Amounts deferred to regulatory accounts on balance sheet	(4,284)	(24)	(1,305)	—
Total gain (loss) in pre-tax earnings	$ 7	$ —	$ (43)	$ —

UNREALIZED GAIN/LOSS. Outstanding derivative instruments related to regulated NGD operations are deferred in accordance with regulatory accounting standards. The cost of foreign currency forward and natural gas derivative contracts are recognized immediately in the cost of gas; however, costs above or below the amount embedded in the current year PGA are subject to a regulatory deferral tariff and therefore, are recorded as a regulatory asset or liability.

REALIZED GAIN/LOSS. NW Natural realized net losses of $1.1 million and net gains of $9.2 million for the three and nine months ended September 30, 2019, from the settlement of natural gas financial derivative contracts, whereas, net losses of $1.9 million and $15.6 million were realized for the three and nine months ended September 30, 2018. Realized gains and losses offset the higher or lower cost of gas purchased resulting in no incremental amounts to collect or refund to customers.

Credit Risk Management of Financial Derivatives Instruments

No collateral was posted with or by NW Natural counterparties as of September 30, 2019 or 2018. NW Natural attempts to minimize the potential exposure to collateral calls by counterparties to manage liquidity risk. Counterparties generally allow a certain credit limit threshold before requiring NW Natural to post collateral against loss positions. Given NW Natural's counterparty credit limits and portfolio diversification, it was not subject to collateral calls in 2019 or 2018. The collateral call exposure is set forth under credit support agreements, which generally contain credit limits. NW Natural could also be subject to collateral call exposure where it has agreed to provide adequate assurance, which is not specific as to the amount of credit limit allowed, but could potentially require additional collateral in the event of a material adverse change.

Based upon current commodity financial swap and option contracts outstanding, which reflect unrealized losses of $2.3 million at September 30, 2019, we have estimated the level of collateral demands, with and without potential adequate assurance calls, using current gas prices and various credit downgrade rating scenarios for NW Natural as follows:

		Credit Rating Downgrade Scenarios			
In thousands	(Current Ratings) A+/A3	BBB+/Baa1	BBB/Baa2	BBB-/Baa3	Speculative
With Adequate Assurance Calls	$ —	$ —	$ —	$ —	$ (1,476)
Without Adequate Assurance Calls	—	—	—	—	(1,476)

NW Natural's financial derivative instruments are subject to master netting arrangements; however, they are presented on a gross basis in the consolidated balance sheets. NW Natural and its counterparties have the ability to set-off obligations to each other under specified circumstances. Such circumstances may include a defaulting party, a credit change due to a merger affecting either party, or any other termination event.

If netted by counterparty, NW Natural's physical and financial derivative position would result in an asset of $4.3 million and a liability of $3.9 million as of September 30, 2019, an asset of $1.9 million and a liability of $10.1 million as of September 30, 2018, and an asset of $3.6 million and a liability of $9.3 million as of December 31, 2018.

NW Natural is exposed to derivative credit and liquidity risk primarily through securing fixed price natural gas commodity swaps to hedge the risk of price increases for natural gas purchases made on behalf of customers. See Note 15 in the 2018 Form 10-K for additional information.

Fair Value

In accordance with fair value accounting, NW Natural includes non-performance risk in calculating fair value adjustments. This includes a credit risk adjustment based on the credit spreads of NW Natural counterparties when in an unrealized gain position, or on NW Natural's own credit spread when in an unrealized loss position. The inputs in our valuation models include natural gas futures, volatility, credit default swap spreads and interest rates. Additionally, the assessment of non-performance risk is generally derived from the credit default swap market and from bond market credit spreads. The impact of the credit risk adjustments for all outstanding derivatives was immaterial to the fair value calculation at September 30, 2019. Using significant other observable or Level 2 inputs, the net fair value was an asset of $0.4 million, a liability of $8.1 million, and a liability of $5.7 million as of September 30, 2019 and 2018, and December 31, 2018, respectively. No Level 3 inputs were used in our derivative valuations, and there were no transfers between Level 1 or Level 2 during the nine months ended September 30, 2019 and 2018. See Note 2 in the 2018 Form 10-K.

17. ENVIRONMENTAL MATTERS

NW Natural owns, or previously owned, properties that may require environmental remediation or action. The range of loss for environmental liabilities is estimated based on current remediation technology, enacted laws and regulations, industry experience gained at similar sites, and an assessment of the probable level of involvement and financial condition of other potentially responsible parties (PRPs). When amounts are prudently expended related to site remediation of those sites described herein, NW Natural has recovery mechanisms in place to collect 96.68% of remediation costs allocable to Oregon customers and 3.32% of costs allocable to Washington customers.

These sites are subject to the remediation process prescribed by the Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (ODEQ). The process begins with a remedial investigation (RI) to determine the nature and extent of contamination and then a risk assessment (RA) to establish whether the contamination at the site poses unacceptable risks to humans and the environment. Next, a feasibility study (FS) or an engineering evaluation/cost analysis (EE/CA) evaluates various remedial alternatives. It is at this point in the process when NW Natural is able to estimate a range of remediation costs and record a reasonable potential remediation liability, or make an adjustment to the existing liability. From this study, the regulatory agency selects a remedy and issues a Record of Decision (ROD). After a ROD is issued, NW Natural would seek to negotiate a consent decree or consent judgment for designing and implementing the remedy. NW Natural would have the ability to further refine estimates of remediation liabilities at that time.

Remediation may include treatment of contaminated media such as sediment, soil and groundwater, removal and disposal of media, institutional controls such as legal restrictions on future property use, or natural recovery. Following construction of the remedy, the EPA and ODEQ also have requirements for ongoing maintenance, monitoring and other post-remediation care that may continue for many years. Where appropriate and reasonably known, NW Natural will provide for these costs in the remediation liabilities described below.

Due to the numerous uncertainties surrounding the course of environmental remediation and the preliminary nature of several site investigations, in some cases, NW Natural may not be able to reasonably estimate the high end of the range of possible loss. In those cases, the nature of the possible loss has been disclosed, as has the fact that the high end of the range cannot be reasonably estimated where a range of potential loss is available. Unless there is an estimate within the range of possible losses that is more likely than other cost estimates within that range, NW Natural records the liability at the low end of this range. It is likely changes in these estimates and ranges will occur throughout the remediation process for each of these sites due to the continued evaluation and clarification concerning responsibility, the complexity of environmental laws and regulations and the determination by regulators of remediation alternatives. In addition to remediation costs, NW Natural could also be subject to Natural Resource Damages (NRD) claims. NW Natural will assess the likelihood and probability of each claim and recognize a liability if deemed appropriate. Refer to "*Other Portland Harbor*" below.

Environmental Sites

The following table summarizes information regarding liabilities related to environmental sites, which are recorded in other current liabilities and other noncurrent liabilities in NW Natural's balance sheet:

	Current Liabilities			Non-Current Liabilities		
	September 30,		December 31,	September 30,		December 31,
In thousands	2019	2018	2018	2019	2018	2018
Portland Harbor site:						
Gasco/Siltronic Sediments	$ 5,976	$ 2,471	$ 5,117	$ 43,861	$ 44,410	$ 44,351
Other Portland Harbor	2,211	1,392	2,600	5,331	3,540	6,273
Gasco/Siltronic Upland site	8,202	8,847	13,983	42,267	44,310	44,830
Central Service Center site	5	25	10	—	—	—
Front Street site	6,009	6,011	11,402	5,024	5,342	3
Oregon Steel Mills	—	—	—	179	179	179
Total	$ 22,403	$ 18,746	$ 33,112	$ 96,662	$ 97,781	$ 95,636

PORTLAND HARBOR SITE. The Portland Harbor is an EPA listed Superfund site that is approximately 10 miles long on the Willamette River and is adjacent to NW Natural's Gasco uplands site. NW Natural is one of over one hundred PRPs, each jointly and severally liable, at the Superfund site. In January 2017, the EPA issued its Record of Decision, which selects the remedy for the cleanup of the Portland Harbor site (Portland Harbor ROD). The Portland Harbor ROD estimates the present value total cost at approximately $1.05 billion with an accuracy between -30% and +50% of actual costs. NW Natural is actively pursuing clarification and flexibility under the Portland Harbor ROD in order to better understand its obligations.

NW Natural's potential liability is a portion of the costs of the remedy for the entire Portland Harbor Superfund site. The cost of that remedy is expected to be allocated among more than one hundred PRPs. NW Natural is participating in a non-binding allocation process with the other PRPs in an effort to resolve its potential liability. The Portland Harbor ROD does not provide any additional clarification around allocation of costs among PRPs; accordingly, NW Natural has not modified any of the recorded liabilities at this time as a result of the issuance of the Portland Harbor ROD.

NW Natural manages the liability related to the Superfund site as two distinct remediation projects: the Gasco/Siltronic Sediments and Other Portland Harbor projects.

Gasco/Siltronic Sediments. In 2009, NW Natural and Siltronic Corporation entered into a separate Administrative Order on Consent with the EPA to evaluate and design specific remedies for sediments adjacent to the Gasco uplands and Siltronic uplands sites. NW Natural submitted a draft EE/CA to the EPA in May 2012 to provide the estimated cost of potential remedial alternatives for this site. At this time, the estimated costs for the various sediment remedy alternatives in the draft EE/CA for the additional studies and design work needed before the cleanup can occur, and for regulatory oversight throughout the cleanup range from $49.8 million to $350 million. NW Natural has recorded a liability of $49.8 million for the sediment cleanup, which reflects the low end of the range. At this time, NW Natural believes sediments at this site represent the largest portion of its liability related to the Portland Harbor site discussed above.

Other Portland Harbor. While we believe liabilities associated with the Gasco/Siltronic sediments site represent NW Natural's largest exposure, there are other potential exposures associated with the Portland Harbor ROD, including NRD costs and harborwide remedial design and cleanup costs (including downstream petroleum contamination in the navigation channel), for which allocations among the PRPs have not yet been determined.

NW Natural and other parties have signed a cooperative agreement with the Portland Harbor Natural Resource Trustee council to participate in a phased NRD assessment to estimate liabilities to support an early restoration-based settlement of NRD claims. One member of this Trustee council, the Yakama Nation, withdrew from the council in 2009, and in 2017, filed suit against NW Natural and 29 other parties seeking remedial costs and NRD assessment costs associated with the Portland Harbor site, set forth in the complaint. The complaint seeks recovery of alleged costs totaling $0.3 million in connection with the selection of a remedial action for the Portland Harbor site as well as declaratory judgment for unspecified future remedial action costs and for costs to assess the injury, loss or destruction of natural resources resulting from the release of hazardous substances at and from the Portland Harbor site. The Yakama Nation has filed two amended complaints addressing certain pleading defects and dismissing the State of Oregon. On the motion of NW Natural and certain other defendants the federal court has stayed the case pending the outcome of the non-binding allocation proceeding discussed above. NW Natural has recorded a liability for NRD claims which is at the low end of the range of the potential liability; the high end of the range cannot be reasonably estimated at this time. The NRD liability is not included in the aforementioned range of costs provided in the Portland Harbor ROD.

GASCO UPLANDS SITE. A predecessor of NW Natural, Portland Gas and Coke Company, owned a former gas manufacturing plant that was closed in 1958 (Gasco site) and is adjacent to the Portland Harbor site described above. The Gasco site has been under investigation by NW Natural for environmental contamination under the ODEQ Voluntary Cleanup Program (VCP). It is not included in the range of remedial costs for the Portland Harbor site noted above. The Gasco site is managed in two parts, the uplands portion and the groundwater source control action.

NW Natural submitted a revised Remedial Investigation Report for the uplands to ODEQ in May 2007. In March 2015, ODEQ approved Remedial Action (RA) for this site, enabling commencement of work on the FS in 2016. NW Natural has recognized a liability for the remediation of the uplands portion of the site which is at the low end of the range of potential liability; the high end of the range cannot be reasonably estimated at this time.

In October 2016, ODEQ and NW Natural agreed to amend their VCP agreement to incorporate a portion of the Siltronic property adjacent to the Gasco site formerly owned by Portland Gas & Coke between 1939 and 1960 into the Gasco RA and FS, excluding the uplands for Siltronic. Previously, NW Natural was conducting an investigation of manufactured gas plant constituents on the entire Siltronic uplands for ODEQ. Siltronic will be working with ODEQ directly on environmental impacts to the remainder of its property.

In September 2013, NW Natural completed construction of a groundwater source control system, including a water treatment station, at the Gasco site. NW Natural has estimated the cost associated with the ongoing operation of the system and has recognized a liability which is at the low end of the range of potential cost. NW Natural cannot estimate the high end of the range at this time due to the uncertainty associated with the duration of running the water treatment station, which is highly dependent on the remedy determined for both the upland portion as well as the final remedy for Gasco sediment exposure.

OTHER SITES. In addition to those sites above, NW Natural has environmental exposures at three other sites: Central Service Center, Front Street and Oregon Steel Mills. NW Natural may have exposure at other sites that have not been identified at this time. Due to the uncertainty of the design of remediation, regulation, timing of the remediation and in the case of the Oregon Steel Mills site, pending litigation, liabilities for each of these sites have been recognized at their respective low end of the range of potential liability; the high end of the range could not be reasonably estimated at this time.

Central Service Center site. NW Natural is currently performing an environmental investigation of the property under ODEQ's Independent Cleanup Pathway. This site is on ODEQ's list of sites with confirmed releases of hazardous substances, and cleanup is necessary.

Front Street site. The Front Street site was the former location of a gas manufacturing plant NW Natural operated (the former Portland Gas Manufacturing site, or PGM). At ODEQ’s request, NW Natural conducted a sediment and source control investigation and provided findings to ODEQ. In December 2015, an FS on the former Portland Gas Manufacturing site was completed.

In July 2017, ODEQ issued the PGM ROD. The ROD specifies the selected remedy, which requires a combination of dredging, capping, treatment, and natural recovery. In addition, the selected remedy also requires institutional controls and long-term inspection and maintenance. NW Natural revised the liability in the second quarter of 2017 to incorporate the estimated undiscounted cost of approximately $10.5 million for the selected remedy. Further, NW Natural has recognized an additional liability of $0.5 million for additional studies and design costs as well as regulatory oversight throughout the cleanup. NW Natural plans to complete the remedial design in 2019 and currently expects to construct the remedy in 2020.

Oregon Steel Mills site. Refer to "*Legal Proceedings*" below.

<u>Site Remediation and Recovery Mechanism (SRRM)</u>
NW Natural has an SRRM through which it tracks and has the ability to recover past deferred and future prudently incurred environmental remediation costs allocable to Oregon, subject to an earnings test, for those sites identified therein. See Note 17 in the 2018 Form 10-K for a description of the SRRM collection process.

The following table presents information regarding the total regulatory asset deferred:

	September 30,		December 31,
In thousands	2019	2018	2018
Deferred costs and interest [1]	$ 36,392	$ 40,578	$ 41,883
Accrued site liabilities [2]	118,699	116,150	128,369
Insurance proceeds and interest	(80,741)	(87,631)	(88,502)
Total regulatory asset deferral[1]	$ 74,350	$ 69,097	$ 81,750
Current regulatory assets[3]	5,100	5,633	5,601
Long-term regulatory assets[3]	69,250	63,464	76,149

(1) Includes pre-review and post-review deferred costs, amounts currently in amortization, and interest, net of amounts collected from customers.

(2) Excludes 3.32% of the Front Street site liability, or $0.4 million in 2019 and $0.4 million in 2018, as the OPUC only allows recovery of 96.68% of costs for those sites allocable to Oregon, including those that historically served only Oregon customers.

(3) Environmental costs relate to specific sites approved for regulatory deferral by the OPUC and WUTC. In Oregon, NW Natural earns a carrying charge on cash amounts paid, whereas amounts accrued but not yet paid do not earn a carrying charge until expended. It also accrues a carrying charge on insurance proceeds for amounts owed to customers. In Washington, neither the cash paid nor insurance proceeds received accrue a carrying charge. Current environmental costs represent remediation costs management expects to collect from customers in the next 12 months. Amounts included in this estimate are still subject to a prudence and earnings test review by the OPUC and do not include the $5.0 million tariff rider. The amounts allocable to Oregon are recoverable through NGD rates, subject to an earnings test.

ENVIRONMENTAL EARNINGS TEST. To the extent NW Natural earns at or below its authorized Return on Equity (ROE) as defined by the SRRM, remediation expenses and interest in excess of the $5.0 million tariff rider and $5.0 million insurance proceeds are recoverable through the SRRM. To the extent that NW Natural earns more than its authorized ROE in a year, it is required to cover environmental expenses and interest on expenses greater than the $10.0 million with those earnings that exceed its authorized ROE.

Under the 2015 Order, the OPUC stated they would revisit the deferral and amortization of future remediation expenses, as well as the treatment of remaining insurance proceeds three years from the original Order, or earlier if NW Natural gains greater certainty about future remediation costs, to consider whether adjustments to the mechanism may be appropriate. NW Natural filed an update with the OPUC in March 2018 and recommended no changes.

WASHINGTON DEFERRAL. On October 21, 2019 the WUTC issued an order in the Washington rate case proceeding allowing a recovery mechanism for deferred environmental costs allocable costs to Washington customers commencing November 1, 2019.

Legal Proceedings

Other than the matters discussed above and ordinary course claims and litigation noted below, NW Holdings is not currently party to any direct claims or litigation, though in the future it may be subject to further claims and litigation arising in the ordinary course of business.

NW Natural is subject to claims and litigation arising in the ordinary course of business. Although the final outcome of any of these legal proceedings cannot be predicted with certainty, including the matter described below, NW Natural and NW Holdings do not expect that the ultimate disposition of any of these matters will have a material effect on financial condition, results of operations or cash flows. See also Part II, Item 1, "*Legal Proceedings*".

OREGON STEEL MILLS SITE. See Note 17 in the 2018 Form 10-K.

For additional information regarding other commitments and contingencies, see Note 16 in the 2018 Form 10-K.

18. DISCONTINUED OPERATIONS

NW Holdings

On June 20, 2018, NWN Gas Storage, then a wholly owned subsidiary of NW Natural, entered into a Purchase and Sale Agreement (the Agreement) that provides for the sale by NWN Gas Storage of all of the membership interests in Gill Ranch. Gill Ranch owns a 75% interest in the natural gas storage facility located near Fresno, California known as the Gill Ranch Gas Storage Facility. Pacific Gas and Electric Company (PG&E) owns the remaining 25% interest in the Gill Ranch Gas Storage Facility. The CPUC regulates Gill Ranch under a market-based rate model which allows for the price of storage services to be set by the marketplace. The CPUC also regulates the issuance of securities, system of accounts, and regulates intrastate storage services.

The Agreement provides for an initial cash purchase price of $25.0 million (subject to a working capital adjustment), plus potential additional payments to NWN Gas Storage of up to $26.5 million in the aggregate if Gill Ranch achieves certain economic performance levels for the first three full gas storage years (April 1 of one year through March 31 of the following year) occurring after the closing and the remaining portion of the gas storage year during which the closing occurs.

The closing of the transaction is subject to approval by the CPUC, other customary closing conditions and covenants, including the requirement that all of the representations and warranties be true and correct as of the closing date except, as would not, in the case of certain representations and warranties, be reasonably expected to have a material adverse effect on Gill Ranch. The agreement is currently subject to termination by either party if the transaction has not closed by December 20, 2019. The parties are considering an extension of this date in the event CPUC approval is not obtained by that time.

In July 2018, Gill Ranch filed an application with the CPUC for approval of this transaction. On February 14, 2019, the active parties to the CPUC proceeding filed a settlement agreement with the CPUC. One of the parties to the settlement agreement, the CPUC's Office of the Safety Advocate, has filed to withdraw from the settlement and currently opposes approval of the application. On October 31, 2019, the CPUC Administrative Law Judge issued a proposed decision approving the transaction, which must be approved by the CPUC to be effective. A CPUC ruling on the proposed decision is expected in late 2019 or early 2020. We continue to strive to close this transaction.

As a result of the strategic shift away from the California gas storage market and the significance of Gill Ranch's financial results in 2017, we concluded that the pending sale of Gill Ranch qualified it as assets and liabilities held for sale and discontinued operations. As such, the assets and liabilities associated with Gill Ranch have been classified as discontinued operations assets and discontinued operations liabilities, respectively, and, the results of Gill Ranch are presented, net of tax, as discontinued operations separately from the results of continuing operations for all periods presented. The expenses included in the results of discontinued operations are the direct operating expenses incurred by Gill Ranch that may be reasonably segregated from the costs of NW Holdings' continuing operations.

The following table presents the carrying amounts of the major components of Gill Ranch that are classified as discontinued operations assets and liabilities on the consolidated balance sheets:

	NW Holdings Discontinued Operations		
	September 30,		December 31,
In thousands	2019	2018	2018
Assets:			
Accounts receivable	$ 907	$ 395	$ 390
Inventories	712	661	685
Other current assets	45	107	333
Property, plant, and equipment	12,589	11,241	11,621
Less: Accumulated depreciation	6	7	7
Operating lease right of use asset	118	—	—
Other non-current assets	247	247	247
Total discontinued operations assets - current assets [(1)]	$ 14,612	$ 12,644	$ 13,269
Liabilities:			
Accounts payable	$ 1,375	$ 751	$ 873
Other current liabilities	342	405	307
Operating lease liabilities	114	—	—
Other non-current liabilities	11,568	11,847	11,779
Total discontinued operations liabilities - current liabilities [(1)]	$ 13,399	$ 13,003	$ 12,959

(1) The total assets and liabilities of Gill Ranch are classified as current as of September 30, 2019 and December 31, 2018 because it is probable that the sale will be completed within one year.

The following table presents the operating results of Gill Ranch, which was reported within the gas storage segment historically, and is presented net of tax on the consolidated statements of comprehensive income:

	NW Holdings Discontinued Operations			
	Three Months Ended September 30,		Nine Months Ended September 30,	
In thousands, except per share data	2019	2018	2019	2018
Revenues	$ 1,410	$ 748	$ 4,879	$ 2,831
Expenses:				
Operations and maintenance	2,113	1,549	6,377	4,139
General taxes	40	(261)	159	419
Depreciation and amortization	105	106	317	324
Other expenses and interest	233	237	699	371
Total expenses	2,491	1,631	7,552	5,253
Loss from discontinued operations before income taxes	(1,081)	(883)	(2,673)	(2,422)
Income tax benefit	(286)	(233)	(705)	(639)
Loss from discontinued operations, net of tax	$ (795)	$ (650)	$ (1,968)	$ (1,783)
Loss from discontinued operations per share of common stock:				
Basic	$ (0.02)	$ (0.02)	$ (0.07)	$ (0.06)
Diluted	$ (0.02)	$ (0.02)	$ (0.07)	$ (0.06)

NW Natural

As a result of the holding company reorganization in October 2018, NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings, which were direct and indirect subsidiaries of NW Natural prior to the reorganization, are no longer subsidiaries of NW Natural. As a result, NW Natural's financial statements reflect amounts related to these entities as discontinued operations for all periods presented. The expenses included in the results of discontinued operations are the direct operating expenses incurred by the entities that may be reasonably segregated from the costs of NW Natural's continuing operations.

The following table presents the carrying amounts of the major components of NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings that are classified as discontinued operations assets and liabilities on NW Natural's consolidated balance sheets:

In thousands		NW Natural Discontinued Operations September 30, 2018
Assets:		
Cash	$	21,079
Accounts receivable		517
Receivables from affiliates		3,791
Inventories		679
Other current assets		161
Property, plant, and equipment		14,732
Less: Accumulated depreciation		221
Other investments		13,654
Goodwill		6,563
Other non-current assets		351
Discontinued operations - current assets		26,227
Discontinued operations - non-current assets		35,079
Total discontinued operations assets	$	61,306
Liabilities:		
Accounts payable	$	1,292
Taxes accrued		99
Payables to affiliates		939
Other current liabilities		1,439
Long-term debt		834
Deferred tax liabilities		(14,696)
Other non-current liabilities		11,932
Discontinued operations - current liabilities		3,769
Discontinued operations - non-current liabilities		(1,930)
Total discontinued operations liabilities	$	1,839

The following table presents the operating results prior to the holding company reorganization effective October 1, 2018 of NWN Energy, NWN Gas Storage, Gill Ranch, NNG Financial, NWN Water, and NW Holdings, which were historically reported within the gas storage segment and other, and is presented net of tax on NW Natural's consolidated statements of comprehensive income:

	NW Natural Discontinued Operations	
	Three Months Ended September 30,	Nine Months Ended September 30,
In thousands	2018	2018
Revenues	$ 818	$ 3,016
Expenses:		
Operations and maintenance	1,408	4,151
General taxes, net	(255)	448
Depreciation and amortization	138	420
Other expenses and interest	232	342
Total expenses	1,523	5,361
Loss from discontinued operations before income taxes	(705)	(2,345)
Income tax benefit	(186)	(622)
Loss from discontinued operations, net of tax	$ (519)	$ (1,723)

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following is management's assessment of NW Holdings' and NW Natural's financial condition, including the principal factors that affect results of operations. The discussion refers to the consolidated results from continuing operations for the three and nine months ended September 30, 2019 and 2018 of NW Holdings, the substantial majority of which consist of the operating results of NW Natural. When significant activity exists at NW Holdings that does not exist at NW Natural, additional disclosure has been provided. References in this discussion to "Notes" are to the Notes to Unaudited Consolidated Financial Statements in this report. A significant portion of the business results are seasonal in nature, and, as such, the results of operations for the three and nine month periods are not necessarily indicative of expected fiscal year results. Therefore, this discussion should be read in conjunction with NW Holdings' and NW Natural's 2018 Annual Report on Form 10-K, as applicable (2018 Form 10-K).

NW Holdings' direct and indirect wholly-owned subsidiaries include:

- Northwest Natural Gas Company (NW Natural);
  - Northwest Energy Corporation (Energy Corp);
    - NWN Gas Reserves LLC (NWN Gas Reserves);
- NW Natural Energy, LLC (NWN Energy);
  - NW Natural Gas Storage, LLC (NWN Gas Storage);
    - Gill Ranch Storage, LLC (Gill Ranch), which is presented as a discontinued operation;
- NNG Financial Corporation (NNG Financial);
  - KB Pipeline Company (KB);
- NW Natural Water Company, LLC (NWN Water);
  - Falls Water Co., Inc. (Falls Water);
  - Salmon Valley Water Company;
  - NW Natural Water of Oregon, LLC (NWN Water of Oregon);
    - Sunstone Water, LLC;
    - Sunstone Infrastructure, LLC;
    - Sunriver Water, LLC (Sunriver Water);
    - Sunriver Environmental, LLC (Sunriver Environmental);
  - NW Natural Water of Washington, LLC (NWN Water of Washington);
    - Cascadia Infrastructure, LLC;
    - Cascadia Water, LLC (Cascadia);
  - NW Natural Water of Idaho, LLC (NWN Water of Idaho);
    - Gem State Water Company, LLC (Gem State);
    - Gem State Infrastructure, LLC; and
  - NW Natural Water of Texas, LLC (NWN Water of Texas).

On October 1, 2018, we completed a reorganization into a holding company structure. We believe that our holding company structure is an agile and efficient platform from which to pursue, finance, and oversee new opportunities, such as in the water sector, while also providing legal separation between regulated natural gas distribution operations and other businesses. In this reorganization, shareholders of NW Natural (the predecessor publicly held parent company) became shareholders of NW Holdings, on a one-for-one basis, with the same number of shares and same ownership percentage as they held in NW Natural immediately prior to the reorganization. NW Natural became a wholly-owned subsidiary of NW Holdings. Additionally, certain subsidiaries of NW Natural were transferred to NW Holdings. As required under accounting guidance, these subsidiaries are presented as discontinued operations in the consolidated results of NW Natural within this report.

NW Natural's natural gas distribution activities are reported in the natural gas distribution (NGD) segment. The NGD segment includes our NW Natural local gas distribution business, NWN Gas Reserves, which is a wholly-owned subsidiary of Energy Corp, and the NGD-portion of NW Natural's Mist storage facility in Oregon. Other activities aggregated and reported as other at NW Natural include the non-NGD storage activity at Mist as well as asset management services and the appliance retail center operations. Other activities aggregated and reported as other at NW Holdings include NWN Energy's equity investment in Trail West Holding, LLC (TWH), which is pursuing the development of a proposed natural gas pipeline through its wholly-owned subsidiary, Trail West Pipeline, LLC (TWP); NNG Financial's investment in Kelso-Beaver Pipeline (KB Pipeline); and NWN Water, which through itself or its subsidiaries owns and continues to pursue investments in the water sector. See Note 4 for further discussion of our business segment and other, as well as our direct and indirect wholly-owned subsidiaries.

NON-GAAP FINANCIAL MEASURES. In addition to presenting the results of operations and earnings amounts in total, certain financial measures are expressed in cents per share, which are non-GAAP financial measures. All references in this section to earnings per share (EPS) are on the basis of diluted shares. We use such non-GAAP financial measures to analyze our financial performance because we believe they provide useful information to our investors and creditors in evaluating our financial condition and results of operations. Our non-GAAP financial measures should not be considered a substitute for, or superior to, measures calculated in accordance with U.S. GAAP.

EXECUTIVE SUMMARY

We manage our business and strategic initiatives with a long-term view of providing natural gas service safely and reliably to customers, working with regulators on key policy initiatives, and remaining focused on growing our business. See *"2019 Outlook"* in the 2018 Form 10-K for more information. Current operational highlights include:

- NGD business added over 12,000 meters during the past twelve months for a growth rate of 1.6% at September 30, 2019;
- invested $151.1 million in the NGD distribution system for growth, safety, and reliability; and
- ranked first in the nation for the seventh time in a decade among large gas utilities in the 2019 J.D. Power Gas Utility Residential Customer Satisfaction Study.

Key quarter-to-date financial highlights for NW Holdings include:

	Three Months Ended September 30,				
	2019		2018		QTD
In thousands, except per share data	Amount	Per Share	Amount	Per Share	Change
Net loss from continuing operations	$ (18,506)	$ (0.61)	$ (11,144)	$ (0.39)	$ (7,362)
Loss from discontinued operations, net of tax	(795)	(0.02)	(650)	(0.02)	(145)
Consolidated net loss	$ (19,301)	$ (0.63)	$ (11,794)	$ (0.41)	$ (7,507)
NGD margin	$ 55,903		$ 54,940		$ 963

Key quarter-to-date financial highlights for NW Natural include:

	Three Months Ended September 30,		
	2019	2018	QTD
In thousands	Amount	Amount	Change
Net loss from continuing operations	$ (17,588)	$ (11,275)	$ (6,313)
Loss from discontinued operations, net of tax	—	(519)	519
Consolidated net loss	$ (17,588)	$ (11,794)	$ (5,794)
NGD margin	$ 55,903	$ 54,940	$ 963

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Net loss from continuing operations increased $7.4 million and $6.3 million at NW Holdings and NW Natural, respectively. The increase was primarily due to the effects of implementing of the 2018 Oregon general rate case with regard to pension costs and tax reform.

Beginning April 1, 2019 volumetric base rates for Oregon customers were reduced to reflect the benefit of excess deferred income taxes as a result of the Tax Cuts and Jobs Act (TCJA). Net income is unaffected on an annual basis due to an equivalent reduction in income tax expense. However, recognition timing differences resulted in a detriment of $2.7 million in the current period compared to the prior period. Beginning November 1, 2018 there is also a timing variance with regard to pension expense and recovery, with pension costs recovered volumetrically in base rates, while corresponding expenses are incurred evenly throughout the year. This resulted in a pre-tax decrease of $1.4 million in the current period compared to the prior period.

In addition, net loss from continuing operations increased due to higher interest expense of $1.9 million and $1.5 million at NW Holdings and NW Natural, respectively, driven by higher long-term debt balances. The increases were partially offset by a $1.0 million increase in NGD margin and higher tax benefits from higher pretax loss.

Key year-to-date financial highlights for NW Holdings include:

	Nine Months Ended September 30,				
	2019		2018		YTD
In thousands, except per share data	Amount	Per Share	Amount	Per Share	Change
Net income from continuing operations	$ 26,963	$ 0.91	$ 30,528	$ 1.06	$ (3,565)
Loss from discontinued operations, net of tax	(1,968)	(0.07)	(1,783)	(0.06)	(185)
Consolidated net income	$ 24,995	$ 0.84	$ 28,745	$ 1.00	$ (3,750)
NGD margin	$ 289,539		$ 257,402		$ 32,137

Key year-to-date financial highlights for NW Natural include:

	Nine Months Ended September 30,		
	2019	2018	YTD
In thousands	Amount	Amount	Change
Net income from continuing operations	$ 29,361	$ 30,468	$ (1,107)
Loss from discontinued operations, net of tax	—	(1,723)	1,723
Consolidated net income	$ 29,361	$ 28,745	$ 616
NGD margin	$ 289,539	$ 257,402	$ 32,137

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Net income from continuing operations decreased $3.6 million and $1.1 million at NW Holdings and NW Natural, respectively.

In March 2019, the OPUC issued an order resolving the remaining open items from NW Natural's 2018 Oregon general rate case regarding recovery of the pension balancing account and treatment of the benefits associated with the TCJA. As a result of the order, in the first quarter of 2019, NW Natural recorded a disallowance and several benefits and expenses through the consolidated statements of comprehensive income as follows:

Pension balancing account. Approximately $12.5 million in previously deferred pension expenses were recognized of which approximately $4.6 million was recorded in operations and maintenance expense and $7.9 million was recorded in other income (expense), net. These charges were offset with a corresponding increase in revenue of $7.1 million and in income tax benefits of $2.7 million as the order required the offset of certain deferred TCJA benefits against the pension balancing account. Additional TCJA income tax benefits will be realized throughout 2019 to offset the remainder of the $12.5 million charge. NW Natural also recognized a regulatory pension disallowance of $10.5 million with approximately $3.9 million recognized in operations and maintenance expense and $6.6 million recognized in other income (expense), net, partially offset by related discrete income tax benefits of $1.1 million. Lastly, NW Natural realized $3.8 million of deferred regulatory interest accrued on the pension balancing account.

Deferred TCJA benefits and timing variance. In addition, the OPUC ordered the return of approximately $6.3 million of excess deferred income taxes associated with plant and gas reserves beginning April 1, 2019. As a result, NW Natural recognized approximately $2.0 million in income tax benefits in the first quarter of 2019. Reductions to customer billings commenced April 1, 2019 and will offset these income tax benefits in total by the end of 2019 and in subsequent years until all benefits have been returned.

The $3.6 million and $1.1 million decreases in net income from continuing operations at NW Holdings and NW Natural, respectively, was primarily due to the following factors, all of which occurred at NW Natural:

- a $32.1 million increase in NGD margin driven by a $14.0 million increase from new customer rates in Oregon from NW Natural's 2018 rate case and a $7.2 million increase from the commencement of storage services at the North Mist expansion facility as well as increases from customer growth and colder weather in 2019 compared to 2018; the remaining increase primarily relates to $7.1 million in revenues which were offset by pension expenses as discussed above;
- a $5.0 million decrease in NGD income tax expense primarily due to the income tax implications of the March 2019 OPUC order, including commencement of deferred TCJA benefit credits to customers and the regulatory pension disallowance;
- a $5.2 million increase in deferred regulatory interest income in other income (expense), net, of which $4.4 million relates to interest recognized in association with the OPUC order discussed above; offset by
- a $10.5 million regulatory pension disallowance with $3.9 million reflected in operations and maintenance expense and $6.6 million recorded in other income (expense), net, as discussed above;

- a $11.3 million increase in expenses related to higher pension costs within operations and maintenance expense and other income (expense), net, as NW Natural began collecting costs through customer rates on November 1, 2018 rather than deferring a portion to the pension balancing account;
- a $3.6 million increase in NGD depreciation expense due to plant additions; and
- a $3.3 million decrease in NGD AFUDC interest income due to placing the North Mist expansion project into service;
- a $3.1 million increase in NGD interest expense due to higher commercial paper and long term debt balances; and
- a $3.1 million decrease in revenues from non-NGD gas storage operations at Mist due to increased revenue sharing with NGD customers.

In addition to the drivers described above, the decrease in NW Holdings net income from continuing operations was primarily due to increases in professional service costs, business development costs, and expenses associated with integrating the water business.

See the discussion in "*Results of Operations*" below for additional detail regarding all significant activity that occurred during the third quarter of 2019.

DIVIDENDS

Dividend highlights include:

	Three Months Ended September 30,				Nine Months Ended September 30,							
Per common share		2019		2018		2019		2018		QTD Change		YTD Change
Dividends paid	$	0.4750	$	0.4725	$	1.4250	$	1.4175	$	0.0025	$	0.0075

In October 2019, the Board of Directors of NW Holdings declared a quarterly dividend on NW Holdings common stock of $0.4775 per share, an increase from the prior quarter's dividend. The dividend is payable on November 15, 2019, to shareholders of record on October 31, 2019, reflecting an annual indicated dividend rate of $1.91 per share.

RESULTS OF OPERATIONS

Regulatory Matters

For additional information, see Part II, Item 7 "Results of Operations—*Regulatory Matters"* in the 2018 Form 10-K.

Regulation and Rates

NATURAL GAS DISTRIBUTION. NW Natural's natural gas distribution business is subject to regulation by the OPUC and WUTC with respect to, among other matters, rates and terms of service, systems of accounts, and issuances of securities by NW Natural. In 2018, approximately 89% of NGD customers were located in Oregon, with the remaining 11% in Washington. Earnings and cash flows from natural gas distribution operations are largely determined by rates set in general rate cases and other proceedings in Oregon and Washington. They are also affected by weather, the local economies in Oregon and Washington, the pace of customer growth in the residential, commercial, and industrial markets, and NW Natural's ability to remain price competitive, control expenses, and obtain reasonable and timely regulatory recovery of its natural gas distribution-related costs, including operating expenses and investment costs in plant and other regulatory assets. See "*Most Recent Completed General Rate Cases"* below.

MIST INTERSTATE GAS STORAGE. NW Natural's interstate storage activity at Mist is subject to regulation by the OPUC, WUTC, and the Federal Energy Regulatory Commission (FERC) with respect to, among other matters, rates and terms of service. The OPUC also regulates the intrastate storage services at Mist, while FERC regulates the interstate storage services at Mist. The FERC uses a maximum cost of service model which allows for gas storage prices to be set at or below the cost of service as approved by each agency in their last regulatory filing. The OPUC Schedule 80 rates are tied to the FERC rates, and are updated whenever NW Natural modifies FERC maximum rates.

OTHER. In June 2018, NW Natural entered into a Purchase and Sale Agreement for the sale of all of its ownership interests in Gill Ranch, a natural gas storage facility located near Fresno, California, which is subject to approval by the CPUC and other customary closing conditions. See Note 18 for more information. The wholly-owned regulated water businesses of NW Natural Water are subject to regulation by the OPUC, WUTC, and IPUC, as applicable.

Most Recent Completed General Rate Cases

OREGON. On October 26, 2018, the OPUC issued an order regarding NW Natural's general rate case (Order) originally filed in December 2017 and approved the following items effective beginning November 1, 2018:

- Annual revenue requirement increase of $23.4 million or 3.72% over NW Natural's revenue from existing rates, which includes approximately $12.1 million that would otherwise be recovered under the conservation tariff deferral;
- Capital structure of 50% debt and 50% equity;
- Return on equity (ROE) of 9.4%;
- Cost of capital of 7.317%;
- Rate base of $1.186 billion, or an increase of $300 million since the last rate case in 2012;
- Pension expenses will be recovered through rates with an increase of $8.1 million to revenue requirement; and
- The sharing of asset management revenues related to utility pipeline and storage assets will be 90%/10% with 90% being credited to customers. Previously customers received 67% of these revenues.

After further settlement negotiations directed by the OPUC, in March 2019 the OPUC issued an order resolving the remaining rate case items. As a result, the following items were recorded in the first quarter of 2019:

- Applied $7.1 million of TCJA benefits deferred from January 1, 2018 to October 31, 2018, as a reduction against the pension balancing account;
- Credited to customers' benefit $5.4 million of deferred income taxes as a reduction against the pension balancing account;
- Reduced the amount of the frozen balancing account by an additional $10.5 million; and
- Reduced the interest rate on the pension balancing account from NW Natural's authorized rate of return of 7.317 percent to 4.3 percent.

The items above resulted in the recovery of $12.5 million of deferred pension expenses by applying deferred tax benefits against the pension balancing account. Recognition of these items resulted in higher operations and maintenance expense and other income (expense), net with offsetting benefits recognized in operating revenues and income tax expense. Additional pension expenses of $10.5 million from the regulatory disallowance were also recognized in operations and maintenance expense and other income (expense), net. Deferred regulatory interest income of $3.8 million was also realized in other income (expense), net.

Commencing April 1, 2019, the OPUC also ordered the following:

- Provide an annual credit to base rates of $3.4 million for excess deferred income taxes to all customers, subject to the average rate assumption method;
- Provide an additional annual credit of $3.0 million to sales service customers for five years;
- Collect the remainder of the pension balancing account over ten years in a customer tariff of $7.3 million per year; and
- An increase in rate base of $15.4 million, and corresponding increase to revenue requirement of $1.4 million.

If NW Natural files a general rate case within five years of the date of the Pension Order, this revenue requirement may be adjusted as part of that general rate case.

WASHINGTON. From January 1, 2009, through October 31, 2019, the WUTC authorized rates to customers based on an ROE of 10.1% and an overall rate of return of 8.4% with a capital structure of 51% common equity, 5% short-term debt, and 44% long-term debt.

Effective November 1, 2019, the WUTC authorized rates to customers based on an ROE of 9.40% and an overall rate of return of 7.161% with a capital structure of 49% common equity, 1% short-term debt, and 50% long-term debt. For additional information, see "Regulatory Proceeding Updates— *Washington General Rate Case"* below.

FERC. NW Natural is required under its Mist interstate storage certificate authority and rate approval orders to file every five years either a petition for rate approval or a cost and revenue study to change or justify maintaining the existing rates for its interstate storage services. On October 12, 2018, NW Natural filed a rate petition with FERC for revised maximum cost-based rates, which incorporated the new federal corporate income tax rate. The revised rates were effective beginning November 1, 2018.

NW Natural continuously evaluates the need for rate cases in its jurisdictions. Currently, we are contemplating filing an Oregon rate case in late 2019.

Rate Mechanisms

During 2019, NW Natural's key approved rates and recovery mechanisms for each service area included:

	Oregon	Washington	Washington
	2018 Rate Case (effective 11/1/2018)	2009 Rate Case	2019 Rate Case (effective 11/1/2019)
Authorized Rate Structure:			
ROE	9.4%	10.1%	9.4%
ROR	7.3%	8.4%	7.2%
Debt/Equity Ratio	50%/50%	49%/51%	51%/49%
Key Regulatory Mechanisms:			
Purchased Gas Adjustment (PGA)	X	X	X
Gas Cost Incentive Sharing	X		
Decoupling	X		
Weather Normalization (WARM)	X		
Environmental Cost Deferral	X	X	X
Environmental Cost Recovery	X		X
Interstate Storage and Asset Management Sharing	X	X	X

PURCHASED GAS ADJUSTMENT. Rate changes are established for NW Natural each year under PGA mechanisms in Oregon and Washington to reflect changes in the expected cost of natural gas commodity purchases. The PGA filings include gas costs under spot purchases as well as contract supplies, gas costs hedged with financial derivatives, gas costs from the withdrawal of storage inventories, the production of gas reserves, interstate pipeline demand costs, temporary rate adjustments, which amortize balances of deferred regulatory accounts, and the removal of temporary rate adjustments effective for the previous year.

Typically, each year NW Natural hedges gas prices on a portion of NW Natural's annual sales requirement based on normal weather, including both physical and financial hedges. NW Natural entered the 2018-19 gas year with its forecasted sales volumes hedged at 48% in financial swap and option contracts and 24% in physical gas supplies for Oregon and Washington.

As of September 30, 2019, NW Natural was also hedged in future gas years at approximately 66% for the 2019-20 gas year and between 1% and 28% for annual requirements over the subsequent five gas years. Hedge levels are subject to change based on actual load volumes, which depend to a certain extent on weather, economic conditions, and estimated gas reserve production. Also, gas storage inventory levels may increase or decrease with storage expansion, changes in storage contracts with third parties, variations in the heat content of the gas, and/or storage recall by NW Natural.

In September 2019, NW Natural filed its annual PGA and received OPUC and WUTC approval in October 2019. PGA rate changes were effective November 1, 2019. Rates between states can vary due to different rate structures and mechanisms. In addition, as required with the Washington PGA filing, NW Natural incorporated and expects to begin implementing risk-responsive hedging strategies for the 2019-20 PGA for its Washington gas supplies.

Under the current PGA mechanism in Oregon, there is an incentive sharing provision whereby NW Natural is required to select each year an 80% deferral or a 90% deferral of higher or lower actual gas costs compared to estimated PGA prices, such that the impact on NW Natural's current earnings from the incentive sharing is either 20% or 10% of the difference between actual and estimated gas costs, respectively. For the 2018-19 and 2019-20 gas years, NW Natural selected the 90% deferral option. Under the Washington PGA mechanism, NW Natural defers 100% of the higher or lower actual gas costs, and those gas cost differences are passed on to customers through the annual PGA rate adjustment.

EARNINGS TEST REVIEW. NW Natural is subject to an annual earnings review in Oregon to determine if the NGD business is earning above its authorized ROE threshold. If NGD business earnings exceed a specific ROE level, then 33% of the amount above that level is required to be deferred or refunded to customers. Under this provision, if NW Natural selects the 80% deferral gas cost option, then NW Natural retains all earnings up to 150 basis points above the currently authorized ROE. If NW Natural selects the 90% deferral option, then it retains all earnings up to 100 basis points above the currently authorized ROE. For the 2017-18 and 2018-19 gas years, NW Natural selected the 90% deferral option. The ROE threshold is subject to adjustment annually based on movements in long-term interest rates. For calendar year 2018, the ROE threshold was 10.48%. NW Natural filed the 2018 earnings test in May 2019, and it was approved by the Commission in July 2019. As a result, we were not subject to a customer refund adjustment for 2018.

GAS RESERVES. In 2011, the OPUC approved the Encana gas reserves transaction to provide long-term gas price protection for NGD business customers and determined costs under the agreement would be recovered on an ongoing basis through the annual PGA mechanism. Gas produced from NW Natural's interests is sold at then prevailing market prices, and revenues from such sales, net of associated operating and production costs and amortization, are included in cost of gas. The cost of gas, including a carrying cost for the rate base investment made under the original agreement, is included in NW Natural's annual Oregon PGA filing, which allows NW Natural to recover these costs through customer rates. The net investment under the original agreement earns a rate of return.

In 2014, NW Natural amended the original gas reserves agreement in response to Encana's sale of its interest in the Jonah field located in Wyoming to Jonah Energy. Under the amended agreement with Jonah Energy, NW Natural has the option to invest in additional wells on a well-by-well basis with drilling costs and resulting gas volumes shared at the amended proportionate working interest for each well in which NW Natural invests. Volumes produced from the additional wells drilled after the amended agreement are included in NW Natural's Oregon PGA at a fixed rate of $0.4725 per therm. NW Natural did not participate in additional wells during the nine months ended September 30, 2019.

DECOUPLING. In Oregon, NW Natural has a decoupling mechanism. Decoupling is intended to break the link between earnings and the quantity of gas consumed by customers, removing any financial incentive to discourage customers' efforts to conserve energy.

The Oregon decoupling mechanism was reauthorized and the baseline expected usage per customer was reset in the 2018 Oregon general rate case. This mechanism employs a use-per-customer decoupling calculation, which adjusts margin revenues to account for the difference between actual and expected customer volumes. The margin adjustment resulting from differences between actual and expected volumes under the decoupling component is recorded to a deferral account, which is included in the annual PGA filing. In Washington, customer use is not covered by such a tariff. See "Regulatory Proceeding Updates - *Washington General Rate Case*" below.

WARM. In Oregon, NW Natural has an approved weather normalization mechanism, which is applied to residential and commercial customer bills. This mechanism is designed to help stabilize the collection of fixed costs by adjusting residential and commercial customer billings based on temperature variances from average weather, with rate decreases when the weather is colder than average and rate increases when the weather is warmer than average. The mechanism is applied to bills from December through mid-May of each heating season. The mechanism adjusts the margin component of customers' rates to reflect average weather, which uses the 25-year average temperature for each day of the billing period. Daily average temperatures and 25-year average temperatures are based on a set point temperature of 59 degrees Fahrenheit for residential customers and 58 degrees Fahrenheit for commercial customers. The collections of any unbilled WARM amounts due to tariff caps and floors are deferred and earn a carrying charge until collected, or returned, in the PGA the following year. Residential and commercial customers in Oregon are allowed to opt out of the weather normalization mechanism, and as of September 30, 2019, 8% of total eligible customers had opted out. NW Natural does not have a weather normalization mechanism approved for residential and commercial Washington customers, which account for about 11% of total customers. See "Business Segment—*Natural Gas Distribution"* below.

INDUSTRIAL TARIFFS. The OPUC and WUTC have approved tariffs covering NGD service to major industrial customers, which are intended to give NW Natural certainty in the level of gas supplies needed to serve this customer group. The approved terms include, among other things, an annual election period, special pricing provisions for out-of-cycle changes, and a requirement that industrial customers complete the term of their service election under NW Natural's annual PGA tariff.

ENVIRONMENTAL COST DEFERRAL AND RECOVERY. NW Natural has authorizations in Oregon and Washington to defer costs related to remediation of properties that are owned or were previously owned by NW Natural. In Oregon, a Site Remediation and Recovery Mechanism (SRRM) is currently in place to recover prudently incurred costs allocable to Oregon customers, subject to an earnings test. On October 21, 2019 the WUTC authorized a Environmental Cost Recovery Mechanism (ECRM) for recovery of prudently incurred costs allocable to Washington customers beginning November 1, 2019.

Oregon SRRM

Under the Oregon SRRM collection process there are three types of deferred environmental remediation expense:

- **Pre-review** - This class of costs represents remediation spend that has not yet been deemed prudent by the OPUC. Carrying costs on these remediation expenses are recorded at NW Natural's authorized cost of capital. NW Natural anticipates the prudence review for annual costs and approval of the earnings test prescribed by the OPUC to occur by the third quarter of the following year.
- **Post-review** - This class of costs represents remediation spend that has been deemed prudent and allowed after applying the earnings test, but is not yet included in amortization. NW Natural earns a carrying cost on these amounts at a rate equal to the five-year treasury rate plus 100 basis points.

- **Amortization** - This class of costs represents amounts included in current customer rates for collection and is calculated as one-fifth of the post-review deferred balance. NW Natural earns a carrying cost equal to the amortization rate determined annually by the OPUC, which approximates a short-term borrowing rate. NW Natural included $6.1 million and $7.4 million of deferred remediation expense approved by the OPUC for collection during the 2018-19 and 2017-18 PGA years, respectively.

In addition, the SRRM also provides for the annual collection of $5.0 million from Oregon customers through a tariff rider. As it collects amounts from customers, NW Natural recognizes these collections as revenue net of any earnings test adjustments and separately amortizes an equal and offsetting amount of the deferred regulatory asset balance through the environmental remediation operating expense line shown separately in the operating expenses section of the Consolidated Statements of Comprehensive Income. For additional information, see Note 17 in the 2018 Form 10-K.

The SRRM earnings test is an annual review of adjusted NGD ROE compared to authorized NGD ROE. For 2018, the first ten months were weighted at 9.5% and the last two months at 9.4%, reflecting the ROE change from NW Natural's most recent rate case effective November 1, 2018. To apply the earnings test NW Natural must first determine what if any costs are subject to the test through the following calculation:

Annual spend
Less: $5.0 million base rate rider
Prior year carry-over[(1)]
$5.0 million insurance + interest on insurance
Total deferred annual spend subject to earnings test
Less: over-earnings adjustment, if any
Add: deferred interest on annual spend[(2)]
Total amount transferred to post-review

(1) Prior year carry-over results when the prior year amount transferred to post-review is negative. The negative amount is carried over to offset annual spend in the following year.
(2) Deferred interest is added to annual spend to the extent the spend is recoverable.

To the extent the NGD business earns at or below its authorized ROE as defined in the SRRM, the total amount transferred to post-review is recoverable through the SRRM. To the extent more than authorized ROE is earned in a year, the amount transferred to post-review would be reduced by those earnings that exceed its authorized ROE.

NW Natural concluded there was no earnings test adjustment for 2018 based on the environmental earnings test that was submitted in May 2019, and approved by the Commission in July 2019.

Washington ECRM
The ECRM established by the WUTC order on October 21, 2019 allows for recovery of past deferred and future prudently incurred remediation costs allocable to Washington through application of insurance proceeds and collections from customers. Prudently incurred costs deferred from the initial deferral authorization in February 2011 through June 2019 are to be fully offset with insurance proceeds. The remaining insurance proceeds will be amortized over a 10.5 year period. On an annual basis NW Natural will file for a prudence determination and a request to amortize costs to the extent that remediation expenses exceed the insurance amortization. After insurance proceeds have been fully amortized, if in a particular year the request to collect deferred amounts exceeds one percent of Washington normalized revenues, then the excess will be collected over three years with interest. See "Regulatory Proceeding Updates - *Washington General Rate Case*" below.

PENSION COST DEFERRAL AND PENSION BALANCING ACCOUNT. From 2011 through October 2018, the OPUC authorized a regulatory mechanism in which NW Natural deferred annual pension expenses above the amount set in rates, with recovery of these deferred amounts through the implementation of a balancing account, which included the expectation of higher and lower pension expenses in future years. During this period the mechanism permitted for NW Natural to accrue interest on the account balance at the NGD business' authorized rate of return. The means by which the account would be recovered by NW Natural was determined by an OPUC order issued in NW Natural's general rate case in March 2019. Pension expense deferrals, excluding interest, were $9.4 million during the nine months ended September 30, 2018. Deferred pension expense recoveries were $14.5 million during the nine months ended September 30, 2019. See "Regulatory Proceeding Updates - *Oregon General Rate Case*" below.

INTERSTATE STORAGE AND ASSET MANAGEMENT SHARING. On an annual basis, NW Natural credits amounts to Oregon and Washington customers as part of a regulatory incentive sharing mechanism related to net revenues earned from Mist gas storage and asset management activities. Generally, amounts are credited to Oregon customers in June, while credits are given to customers in Washington as reductions in rates through the annual PGA filing in November.

In 2019, NW Natural received regulatory approval to refund an interstate storage credit of $16.1 million to Oregon customers. Of this amount, $14.2 million was reflected in customers' June bills and substantially all of the remaining credit was reflected in customers' July bills. Bill credits to Oregon and Washington customers in 2018 were approximately $11.7 million and $1.0 million, respectively.

Regulatory Proceeding Updates

During 2019, NW Natural was involved in the regulatory activities discussed below. For additional information, see Part II, Item 7 "Results of Operations—*Regulatory Matters"* in the 2018 Form 10-K.

INTERSTATE STORAGE AND ASSET MANAGEMENT SHARING. NW Natural received an Order from the OPUC in March 2015 on their review of the current revenue sharing arrangement that allocates a portion of the net revenues generated from non-NGD Mist storage services and third-party asset management services to NGD business customers. The Order required a third-party cost study to be performed. In 2017, a third-party consultant completed a cost study and their final report was filed with the OPUC in February 2018. The OPUC concluded on this matter in the Oregon general rate case proceeding. For additional information, see "Most Recent Completed General Rate Cases - *Oregon*" above.

HOLDING COMPANY REORGANIZATION. On October 1, 2018, we completed the reorganization to a holding company structure. There are a number of conditions under the agreement with the OPUC and the WUTC related to the formation of a holding company structure. One of the conditions is that, for three years following formation of a holding company, NW Natural will be required to provide an annual $500,000 credit to Oregon customers and a $55,000 credit to Washington customers. The first-year credit to both Oregon and Washington customers was given in conjunction with the PGA filings, with the rate adjustments commencing on November 1, 2018.

TAX REFORM DEFERRAL. In December 2017, NW Natural filed applications with the OPUC and WUTC to defer the overall net benefit associated with the TCJA that was enacted on December 22, 2017. Through the Oregon general rate case, in October 2018 the OPUC issued an order directing NW Natural and the other parties to the rate case to engage in further regulatory proceedings to resolve open issues with respect to the treatment of the 10-month deferral period of benefits associated with the TCJA. On February 4, 2019, NW Natural and the other parties to the rate case agreed upon terms by which the deferred benefits would be returned to customers via a joint stipulation filed with the OPUC. On March 25, 2019, the OPUC approved the terms in their entirety. See "Most Recent Completed General Rate Cases - *Oregon*" above for more information.

On October 21, 2019 the WUTC issued an order dictating the means by which deferred tax reform benefits would be returned to customers beginning November 1, 2019. See "Regulatory Proceeding Updates - *Washington General Rate Case*" below.

WATER BUSINESS. In 2019, NW Holdings, through its water subsidiaries, continued implementation of its water strategy and entered into the following agreements which require or required regulatory approval:

- **Sunriver Water, LLC and Sunriver Environmental, LLC** — NWN Water of Oregon filed an application for regulatory approval from the OPUC for the Sunriver Water, LLC acquisition in October 2018. We received OPUC approval for the transaction in April 2019. Sunriver Environmental, LLC is not subject to the OPUC's jurisdiction. The transaction closed in May 2019.
- **Spirit Lake East Water Company and Lynnwood Water** — Gem State filed an application for regulatory approval from the IPUC for these Coeur d'Alene, Idaho acquisitions in February 2019. The transaction closed in July 2019.
- **Estates Water Systems Inc. and Monterra Inc.** — Cascadia filed an application for regulatory approval from the WUTC for these Sequim, Washington acquisitions in February 2019, and received approval in April 2019. The transaction closed in May 2019.
- **Suncadia Water Company, LLC and Suncadia Environmental, LLC** — NWN Water of Washington signed an agreement in October 2019 for the purchase of Suncadia Water Company, LLC (Suncadia Water), a water utility, and Suncadia Environmental, LLC (Suncadia Environmental), a wastewater company. The closing of the transaction is subject to customary closing conditions, including regulatory approval from the WUTC for the Suncadia Water acquisition. Suncadia Environmental is not subject to the WUTC's jurisdiction. The transaction is expected to close in 2020.
- **T&W Water Service Company** — NWN Water of Texas signed an agreement in October 2019 for the purchase of T&W Water Service Company, a water utility in Conroe, Texas. The closing of the transaction is subject to customary closing conditions, including regulatory approval from the Public Utility Commission of Texas. The transaction is expected to close in 2020.

The acquisitions described above, combined with NW Holdings' other water acquisitions to date, are expected to represent approximately $110 million of aggregate investment.

WASHINGTON GENERAL RATE CASE. As previously disclosed, on December 31, 2018, NW Natural filed a general rate case in Washington. Also as previously disclosed, on May 23, 2019, NW Natural and other parties to the rate case proceeding filed two settlements with the Washington Utilities and Transportation Commission (WUTC); a general joint settlement agreement, and a multi-party settlement agreement on NW Natural’s proposed decoupling tariff. On October 21, 2019, the WUTC issued a final order approving the general joint settlement and rejecting the multiparty settlement on decoupling (Order).

Under the Order, effective November 1, 2019, NW Natural is authorized to implement base rate changes designed to increase annual revenues from its Washington customers by approximately $5.14 million. The rate increases are based on the following assumptions:

- Capital structure of 50.0% long-term debt, 1.0% short-term debt, and 49.0% common equity;
- Return on equity of 9.40%;
- Cost of capital of 7.161%; and
- Rate base of $173.7 million, an increase of $46 million since the last rate case.

The Order authorizes NW Natural to provide federal tax reform benefits to customers related to the Tax Cuts and Jobs Act enacted in December 2017. The Order directs NW Natural to provide customers with a rate reduction of $2.1 million over one year to reflect the benefit of the lower federal corporate income tax rate accumulating from January 1, 2018 through October 31, 2019, and provides an additional annual rate reduction initially set at approximately $0.5 million to reflect a benefit from the remeasurement of deferred tax liabilities of approximately $15.0 million.

The Order also permits NW Natural's recovery of environmental remediation expenses allocable to Washington customers for 3.32 percent of environmental remediation expense associated with remediation sites for which costs are shared between Oregon and Washington. The Order disallows approximately $1.5 million of deferred environmental remediation expenses, but permits insurance proceeds to be applied to offset deferred environmental remediation expenses of approximately $3.0 million for a period commencing in February 2011 through November 2018 with additional application of insurance proceeds for a ten and one-half year period ending December 31, 2029. The order approves an environmental cost recovery mechanism tariff, with annual adjustments, to collect prudent environmental remediation expenditures made in the prior year, less that year's allocation of insurance proceeds. NW Natural expects to recognize an after-tax charge of approximately $1.1 million in the fourth quarter of 2019 as a result of this order.

INTEGRATED RESOURCE PLAN (IRP). NW Natural files a full IRP biennially for Oregon and Washington with the OPUC and WUTC, respectively. NW Natural filed its 2018 Oregon and Washington IRPs in August 2018, and received both a letter of compliance from the WUTC and acknowledgment by the OPUC in February 2019. The IRPs included analysis of different growth scenarios and corresponding resource acquisition strategies. This analysis is needed to develop supply and demand resource requirements, consider uncertainties in the planning process, and to establish a plan for providing reliable and low cost natural gas service.

RENEWABLE NATURAL GAS. On June 19, 2019, the Oregon legislature passed Senate Bill 98 (SB98), which enables natural gas utilities to procure or develop renewable natural gas (RNG) on behalf of their Oregon customers. Renewable natural gas is produced from local organic materials like food, agricultural and forestry waste, wastewater, or landfills. Methane is captured from these local organic materials as they decompose and conditioned to pipeline quality, so it can be added into the existing natural gas system thereby reducing the carbon content of the energy supply.

SB98 outlines the following parameters for the RNG program including: setting out broad targets for gas utilities to have as much as 30% of the state's pipeline system be carrying RNG by 2050; allowing gas utilities to invest in RNG infrastructure for the production, processing, pipeline interconnection and distribution of RNG to their customers; and creating a limit of 5% of a utility's revenue requirement that can be used to cover the incremental cost of RNG to protect utilities and ratepayers from excessive costs as the RNG market develops.

The bill was signed into law by the governor in July 2019. The OPUC opened a docket in August to begin the rulemaking process for the bill, which is expected to conclude with the OPUC adopting rules by July 31, 2020.

CORPORATE ACTIVITY TAX. The State of Oregon enacted a Corporate Activity Tax (CAT) that is applicable to all businesses with annual Oregon sourced gross revenue in excess of $1 million. The CAT is in addition to the state's corporate income tax and imposes a 0.57% tax on certain gross receipts sourced to Oregon less a reduction for a portion of cost of goods sold or labor. The CAT legislation became effective September 29, 2019 and applies to calendar years beginning January 1, 2020. We expect to file an application with the OPUC to allow us to defer this additional expense, with recovery of these deferred amounts to be determined through future rate case proceedings.

Business Segment - Natural Gas Distribution (NGD)

NGD margin results are primarily affected by customer growth, revenues from rate-base additions, and, to a certain extent, by changes in delivered volumes due to weather and customers' gas usage patterns because a significant portion of NGD margin is derived from natural gas sales to residential and commercial customers. In Oregon, NW Natural has a conservation tariff (also called the decoupling mechanism), which adjusts margin up or down each month through a deferred regulatory accounting adjustment designed to offset changes resulting from increases or decreases in average use by residential and commercial customers. NW Natural also has a weather normalization tariff in Oregon, WARM, which adjusts customer bills up or down to offset changes in margin resulting from above- or below-average temperatures during the winter heating season. Both mechanisms are designed to reduce, but not eliminate, the volatility of customer bills and natural gas distribution earnings. For additional information, see Part II, Item 7 "Results of Operations—Regulatory Matters—*Rate Mechanisms"* in NW Natural's 2018 Form 10-K. In addition to NW Natural's local gas distribution business, the NGD segment also includes the portion of the Mist underground storage facility used to serve NGD customers, the North Mist gas storage expansion in Oregon, and NWN Gas Reserves, which is a wholly-owned subsidiary of Energy Corp.

The NGD business is primarily seasonal in nature due to higher gas usage by residential and commercial customers during the cold winter heating months. Other categories of customers experience seasonality in their usage but to a lesser extent. Seasonality affects the comparability of the results of operations of the NGD business across quarters but not across years.

NGD segment highlights include:

	Three Months Ended September 30,		Nine Months Ended September 30,			
In thousands, except EPS data	2019	2018	2019	2018	QTD Change	YTD Change
NGD net income (loss)	$ (19,570)	$ (11,983)	$ 22,848	$ 24,930	$ (7,587)	$ (2,082)
EPS - NGD segment	$ (0.64)	$ (0.42)	$ 0.77	$ 0.86	$ (0.22)	$ (0.09)
Gas sold and delivered (in therms)	168,023	162,098	829,808	786,444	5,925	43,364
NGD margin[1]	$ 55,903	$ 54,940	$ 289,539	$ 257,402	$ 963	$ 32,137

[1] See Natural Gas Distribution Margin Table below for additional detail

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. NGD net loss increased $7.6 million, or $0.22 per share. The increase was driven by the timing effects of the implementation of the 2018 Oregon general rate case with regard to pension costs and tax reform, which resulted in a $4.1 million increase in pre-tax loss for the period. See "*Executive Summary"* above.

In addition, net loss increased due to the following factors:

- a $1.7 million increase in depreciation expense due to NGD plant additions; and
- a $1.4 million increase in interest expense on long-term debt balances; partially offset by
- a $1.0 million increase in NGD margin primarily due to:
  - a $0.7 million increase from customer growth;
  - a $5.1 million increase from lease revenue generated from NW Natural's North Mist storage contract which commenced service in May 2019; partially offset by
  - a $3.8 million decrease due to an adjustment to the tax reform deferral estimate in the third quarter of 2018;
  - a $1.2 million decrease from higher decoupling deferrals partially offset by new Oregon customer rates from the 2018 Oregon rate case.

For the three months ended September 30, 2019, total NGD volumes sold and delivered increased 4% over the same period in 2018.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. The primary factors contributing to the $2.1 million, or $0.09 per share, decrease in NGD net income were as follows:

- pension expenses of $12.5 million recognized in operations and maintenance expenses and other income (expense), net from recoveries of NW Natural's pension balancing account, which are primarily offset within NGD margin and tax expense;
- a $11.3 million increase in expenses related to higher pension costs within operations and maintenance expense and other income (expense), net, as NW Natural began collecting costs through customer rates on November 1, 2018 rather than deferring a portion to the pension balancing account;
- a $10.5 million regulatory disallowance of NW Natural's pension balancing account reflected within operations and maintenance expenses and other income (expense), net;
- a $4.1 million increase in interest expense driven by $1.7 million higher interest on long term debt, $1.5 million higher commercial paper interest, and $0.8 million in lower AFUDC debt interest;
- a $3.6 million increase in depreciation expense due to NGD plant additions; and
- a $2.5 million decrease in AFUDC equity interest.

The decreases were partially offset by:

- a $32.1 million increase in NGD margin due to:
  - a $14.0 million increase due to new Oregon customer rates from the 2018 Oregon rate case;
  - a $4.4 million increase from customer growth;
  - a $7.1 million increase due to revenues recognized in association with recoveries of NW Natural's pension balancing account, which are entirely offset by pension expenses within operations and maintenance and other income (expense), net;
  - a $4.5 million increase driven by colder than average weather in the first quarter of 2019 coupled with higher fee revenues from interruptible customers as a result of system restrictions; and
  - a $7.2 million increase from lease revenue generated from NW Natural's North Mist storage contract which commenced service in May 2019; partially offset by
  - a $3.8 million decrease due to an adjustment to the tax reform deferral estimate in the third quarter of 2018;
- a $5.2 million increase in deferred regulatory interest income in other income (expense), net, of which $4.4 million relates to equity interest recognized in association with the OPUC order discussed above; and
- a $5.0 million decrease in income tax expense driven by the return of deferred TCJA benefits to customers through rates.

See "Results of Operations - Regulatory Matters - *Regulatory Proceeding Updates*" above and Note 10 for more information regarding the pension balancing account.

For the nine months ended September 30, 2019, total NGD volumes sold and delivered increased 6% over the same period in 2018.

In May 2019, the Office and Professional Employees International Union, Local 11 (OPEIU) filed a notification of intent to negotiate its current collective bargaining agreement with NW Natural. The current agreement expires November 30, 2019. Negotiations between the OPEIU and NW Natural commenced during the second quarter of 2019.

NATURAL GAS DISTRIBUTION MARGIN TABLE. The following table summarizes the composition of NGD gas volumes, revenues, and cost of sales:

	Three Months Ended September 30,		Nine Months Ended September 30,		Favorable/ (Unfavorable)	
In thousands, except degree day and customer data	2019	2018	2019	2018	QTD Change	YTD Change
NGD volumes (therms):						
Residential and commercial sales	60,427	57,368	480,987	439,024	3,059	41,963
Industrial sales and transportation	107,596	104,730	348,821	347,420	2,866	1,401
Total NGD volumes sold and delivered	168,023	162,098	829,808	786,444	5,925	43,364
Operating Revenues						
Residential and commercial sales	$ 65,206	$ 68,768	$ 419,502	$ 420,878	$ (3,562)	$ (1,376)
Industrial sales and transportation	12,280	12,780	40,511	43,572	(500)	(3,061)
Other distribution revenues	430	3,417	12,678	(3,144)	(2,987)	15,822
Other regulated services	5,147	112	7,397	219	5,035	7,178
Total operating revenues	83,063	85,077	480,088	461,525	(2,014)	18,563
Less: Cost of gas	22,659	25,593	163,335	175,864	2,934	12,529
Less: Environmental remediation expense	967	1,022	7,258	7,528	55	270
Less: Revenue taxes	3,534	3,522	19,956	20,731	(12)	775
NGD margin	$ 55,903	$ 54,940	$ 289,539	$ 257,402	$ 963	$ 32,137
Margin:[(1)]						
Residential and commercial sales	$ 42,859	$ 44,069	$ 246,680	$ 236,559	$ (1,210)	$ 10,121
Industrial sales and transportation	7,309	7,283	23,488	22,625	26	863
Miscellaneous revenues	521	1,167	4,412	3,604	(646)	808
Gain (loss) from gas cost incentive sharing	150	80	(696)	1,088	70	(1,784)
Other margin adjustments[(2)]	(82)	2,229	8,262	(6,693)	(2,311)	14,955
Distribution margin	$ 50,757	$ 54,828	$ 282,146	$ 257,183	$ (4,071)	$ 24,963
Other regulated services	5,146	112	7,393	219	5,034	7,174
NGD Margin	$ 55,903	$ 54,940	$ 289,539	$ 257,402	$ 963	$ 32,137
Degree days[(3)]						
Average[(4)]	9	10	1,646	1,637	(1)	9
Actual[(5)]	28	—	1,638	1,449	NM	13%
Percent colder (warmer) than average weather[(5)]	NM	NM	— %	(11)%		

	As of September 30,			
NGD Meters - end of period:	2019	2018	Change	Growth
Residential meters	685,556	674,167	11,389	1.7%
Commercial meters	68,892	68,192	700	1.0%
Industrial meters	1,010	1,027	(17)	(1.7)%
Total number of meters	755,458	743,386	12,072	1.6%

(1) Amounts reported as margin for each category of meters are operating revenues, which are net of revenue taxes, less cost of gas and environmental remediation expense, subject to earnings test considerations, as applicable.

(2) Other margin adjustments include net revenue deferrals of $0.1 million and $2.2 million for the quarters ended September 30, 2019 and 2018, respectively, and net revenue recoveries of $6.3 million and revenue deferrals of $7.0 million for the nine months ended September 30, 2019 and 2018, respectively, associated with the decline of the U.S. federal corporate income tax rate.

(3) Heating degree days are units of measure reflecting temperature-sensitive consumption of natural gas, calculated by subtracting the average of a day's high and low temperatures from 59 degrees Fahrenheit.

(4) Average weather represents the 25-year average of heating degree days. Through October 31, 2018, average weather is calculated over the period 1986 - 2010, as determined in NW Natural's 2012 Oregon general rate case. Beginning November 1, 2018, average weather is calculated over the period May 31, 1992 through May 30, 2017, as determined in NW Natural's 2018 Oregon general rate case.

(5) NM indicates that the calculated value is not meaningful.

Residential and Commercial Sales

Residential and commercial sales highlights include:

In thousands	Three Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	QTD Change	YTD Change
Volumes (therms):						
Residential sales	32,088	30,758	295,106	269,643	1,330	25,463
Commercial sales	28,339	26,610	185,881	169,381	1,729	16,500
Total volumes	60,427	57,368	480,987	439,024	3,059	41,963
Operating revenues:						
Residential sales	$ 41,989	$ 43,119	$ 285,432	$ 279,350	$ (1,130)	$ 6,082
Commercial sales	23,217	25,649	134,070	141,528	(2,432)	(7,458)
Total operating revenues	$ 65,206	$ 68,768	$ 419,502	$ 420,878	$ (3,562)	$ (1,376)
NGD margin:						
Residential:						
Sales	$ 30,526	$ 28,563	$ 181,790	$ 160,699	$ 1,963	$ 21,091
Alternative revenue:						
Weather normalization	—	—	(3,459)	2,985	—	(6,444)
Decoupling	(896)	824	(1,922)	(326)	(1,720)	(1,596)
Amortization of alternative revenue	164	133	1,537	1,184	31	353
Total residential NGD margin	29,794	29,520	177,946	164,542	274	13,404
Commercial:						
Sales	14,940	13,512	81,016	70,575	1,428	10,441
Alternative revenue:						
Weather normalization	—	—	(1,192)	1,004	—	(2,196)
Decoupling	(728)	1,982	(3,186)	6,699	(2,710)	(9,885)
Amortization of alternative revenue	(1,147)	(945)	(7,904)	(6,261)	(202)	(1,643)
Total commercial NGD margin	13,065	14,549	68,734	72,017	(1,484)	(3,283)
Total NGD margin	$ 42,859	$ 44,069	$ 246,680	$ 236,559	$ (1,210)	$ 10,121

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Residential and commercial margin decreased $1.2 million. The decrease was driven by $4.4 million higher decoupling deferrals primarily due to the change in the pattern of baseline usage in the current period as a result of the 2018 Oregon rate case. This was partially offset by new Oregon customer rates and customer growth.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Residential and commercial margin increased $10.1 million. The increase was driven by new Oregon customer rates from the 2018 Oregon rate case, customer growth, and higher residential volumes due to colder weather in the current period compared to the prior period, partially offset by higher decoupling deferrals in the current period.

Industrial Sales and Transportation

Industrial sales and transportation highlights include:

In thousands	Three Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	QTD Change	YTD Change
Volumes (therms):						
Industrial - firm sales	9,277	8,203	26,623	26,069	1,074	554
Industrial - firm transportation	37,123	34,846	127,678	118,590	2,277	9,088
Industrial - interruptible sales	9,064	9,871	34,081	37,851	(807)	(3,770)
Industrial - interruptible transportation	52,132	51,810	160,439	164,910	322	(4,471)
Total volumes	107,596	104,730	348,821	347,420	2,866	1,401
NGD margin:						
Industrial - firm and interruptible sales	$ 2,777	$ 2,921	$ 8,853	$ 8,626	$ (144)	$ 227
Industrial - firm and interruptible transportation	4,532	4,362	14,635	13,999	170	636
Industrial - sales and transportation	$ 7,309	$ 7,283	$ 23,488	$ 22,625	$ 26	$ 863

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Sales and transportation margin remained flat due to rate increases from the 2018 Oregon rate case and an increase in volumes of 2.9 million therms, or 3%, partially offset by interruptible customers switching from industrial to commercial rate schedules.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Industrial sales and transportation margin increased $0.9 million driven by rate increases from the 2018 Oregon rate case and an increase in volumes of 1.4 million therms, partially offset by interruptible customers switching from industrial to commercial rate schedules.

Cost of Gas

Cost of gas highlights include:

In thousands	Three Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	QTD Change	YTD Change
Cost of gas	$ 22,659	$ 25,593	$ 163,335	$ 175,864	$ (2,934)	$ (12,529)
Volumes sold (therms)[(1)]	78,768	75,442	541,691	502,944	3,326	38,747
Average cost of gas (cents per therm)	$ 0.29	$ 0.34	$ 0.30	$ 0.35	$ (0.05)	$ (0.05)
Gain (loss) from gas cost incentive sharing[(2)]	$ 150	$ 80	$ (696)	$ 1,088	$ 70	$ (1,784)

(1) This calculation excludes volumes delivered to industrial transportation customers.

(2) For additional information regarding NW Natural's gas cost incentive sharing mechanism, see Part II, Item 7 "Results of Operations—Regulatory Matters—Rate Mechanisms—*Gas Reserves*" in NW Natural's 2018 Form 10-K.

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Cost of gas decreased $2.9 million, or 11%, primarily due to a 15% decrease in average cost of gas due to lower natural gas prices within the PGA, partially offset by a 4% increase in volumes sold.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Cost of gas decreased $12.5 million, or 7%, primarily due to a 14% decrease in average cost of gas from lower gas costs within the PGA, partially offset by an 8% increase in volumes sold driven by customer growth and warmer than average weather in 2018 compared to average weather in the current period.

Other Regulated Services

Other regulated services highlights include:

In thousands	Three Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	QTD Change	YTD Change
North Mist storage services	$ 5,088	$ —	$ 7,221	$ —	$ 5,088	$ 7,221
Other services	58	112	172	219	(54)	(47)
Total other regulated services	$ 5,146	$ 112	$ 7,393	$ 219	$ 5,034	$ 7,174

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Other regulated services margin increased $5.0 million primarily due to the commencement of storage services at the North Mist expansion facility in May 2019. See Note 7 for information regarding North Mist expansion lease accounting.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Other regulated services margin increased $7.2 million primarily due to the commencement of storage services at the North Mist expansion facility in May 2019. See Note 7 for information regarding North Mist expansion lease accounting.

Other

Other activities aggregated and reported as other at NW Natural include the non-NGD storage activity at Mist as well as asset management services and the appliance retail center operations. Other activities aggregated and reported as other at NW Holdings include NWN Energy's equity investment in Trail West Holding, LLC (TWH), which is pursuing the development of a proposed natural gas pipeline through its wholly-owned subsidiary, Trail West Pipeline, LLC (TWP); NNG Financial's investment in Kelso-Beaver Pipeline (KB Pipeline); and NWN Water, which owns and continues to pursue investments in the water sector. See Note 4 for further discussion of our business segment and other, as well as our direct and indirect wholly-owned subsidiaries, and Note 14 for further details on our investment in TWH.

The following table presents the results of activities aggregated and reported as other for both NW Holdings and NW Natural:

	Three Months Ended September 30,		Nine Months Ended September 30,			
In thousands, except EPS data	2019	2018	2019	2018	QTD Change	YTD Change
NW Natural other - net income	$ 1,982	$ 708	$ 6,513	$ 5,538	$ 1,274	$ 975
Other NW Holdings activity	(918)	131	(2,398)	60	(1,049)	(2,458)
NW Holdings other - net income	$ 1,064	$ 839	$ 4,115	$ 5,598	$ 225	$ (1,483)
EPS - NW Holdings - other	$ 0.03	$ 0.03	$ 0.14	$ 0.20	$ —	$ (0.06)

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Overall other net income remained flat at NW Holdings and increased by $1.3 million at NW Natural. The increase at NW Natural was primarily due to lower operations and maintenance costs and other benefits, partially offset by a decrease in revenues from non-NGD gas storage operations at Mist. NW Holdings other net income remained flat due to the increase at NW Natural, offset by increases in professional service costs, business development costs, and expenses associated with integrating the water business.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Other net income decreased $1.5 million at NW Holdings and increased $1.0 million at NW Natural. The increase at NW Natural was primarily due to lower operations and maintenance costs and other benefits, partially offset by a decrease in revenues from non-NGD gas storage operations at Mist. The decrease at NW Holdings was due to the increase at NW Natural, offset by increases in professional service costs, business development costs, and expenses associated with integrating the water business.

Consolidated Operations

Operations and Maintenance

Operations and maintenance highlights include:

	Three Months Ended September 30,		Nine Months Ended September 30,			
In thousands	2019	2018	2019	2018	QTD Change	YTD Change
NW Natural	$ 37,710	$ 37,709	$ 125,436	$ 115,108	$ 1	$ 10,328
Other NW Holdings operations and maintenance	3,176	(140)	6,418	12	3,316	6,406
NW Holdings	$ 40,886	$ 37,569	$ 131,854	$ 115,120	$ 3,317	$ 16,734

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Operations and maintenance expense increased by $3.3 million at NW Holdings and remained flat at NW Natural. The increase at NW Holdings was primarily due to increases in professional service costs, business development costs, and expenses associated with integrating the water business.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Operations and maintenance expense increased by $16.7 million and $10.3 million at NW Holdings and NW Natural, respectively, primarily due to the following which occurred at NW Natural:

- a $4.6 million increase in pension expenses (service cost component) due to recovery of amounts in NW Natural's pension balancing account, which was primarily offset within NGD margin and income tax benefits;
- a $3.9 million regulatory pension disallowance (service cost component) as a result of the March 2019 OPUC order in the Oregon general rate case; and
- a $2.9 million increase from higher pension costs (service cost component) as NW Natural began collecting costs through customer rates on November 1, 2018 rather than deferring a portion to the pension balancing account.

The $6.4 million increase in other NW Holdings operations and maintenance expense was primarily due to increases in professional service costs, business development costs, and expenses associated with integrating the water business.

See "Results of Operations - Regulatory Matters - *Regulatory Proceeding Updates*" above and Note 10 for more information regarding the pension balancing account.

Depreciation and Amortization
Depreciation and amortization highlights include:

	Three Months Ended September 30,		Nine Months Ended September 30,		QTD	YTD
In thousands	2019	2018	2019	2018	Change	Change
NW Natural	$ 23,074	$ 21,454	$ 66,821	$ 63,412	$ 1,620	$ 3,409
Other NW Holdings depreciation and amortization	$ 301	$ 31	513	95	270	418
NW Holdings	$ 23,375	$ 21,485	$ 67,334	$ 63,507	$ 1,890	$ 3,827

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Depreciation and amortization expense increased $1.9 million at NW Holdings and $1.6 million at NW Natural primarily due to NGD plant additions.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Depreciation and amortization expense increased $3.8 million and $3.4 million at NW Holdings and NW Natural, respectively, primarily due to NGD plant additions.

Other Income (Expense), Net
Other income (expense), net highlights include:

	Three Months Ended September 30,		Nine Months Ended September 30,		QTD	YTD
In thousands	2019	2018	2019	2018	Change	Change
NW Natural other income (expense), net	$ (2,323)	$ (320)	$ (18,905)	$ (1,168)	$ (2,003)	$ (17,737)
Other NW Holdings activity	56	8	123	29	48	94
NW Holdings other income (expense), net	$ (2,267)	$ (312)	$ (18,782)	$ (1,139)	$ (1,955)	$ (17,643)

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Other income (expense), net decreased $2.0 million at both NW Holdings and NW Natural. The decrease was primarily due to the following factors:
- a $3.5 million decrease from higher pension costs (non-service cost component) as NW Natural began collecting costs through customer rates on November 1, 2018 rather than deferring a portion to the pension balancing account; and
- a $1.0 million decrease from lower NGD AFUDC equity interest income primarily driven by placing the North Mist expansion project into service in May 2019; partially offset by
- a $1.8 million increase from lower pension costs (non-service cost component) from lower net periodic benefit costs incurred in the current period in comparison to the prior period; and
- a $0.4 million increase in regulatory interest income primarily relating to higher deferred gas costs in the current period in comparison to the prior period.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Other income (expense), net decreased $17.6 million and $17.7 million at NW Holdings and NW Natural, respectively. The decrease was primarily due to the following factors:
- a $8.4 million decrease from higher pension costs (non-service cost component) as NW Natural began collecting costs through customer rates on November 1, 2018 rather than deferring a portion to the pension balancing account;
- a $7.9 million decrease from higher pension costs (non-service cost component) related to the recovery of NW Natural's pension balancing account, which is largely offset within NGD margin and tax expense;
- a $6.6 million regulatory pension disallowance (non-service cost component) as a result of the March 2019 OPUC order in the Oregon general rate case; and
- a $2.5 million decrease in NGD AFUDC equity interest income primarily driven by placing the North Mist expansion project into service in May 2019; partially offset by

- a $5.2 million increase in regulatory interest income, of which $4.4 million is related to the realization of the equity interest component of financing costs accrued on the pension balancing account as recovery of the deferral began in March 2019; and
- a $2.7 million increase from lower pension costs (non-service cost component) from lower net periodic benefit costs incurred in the current period in comparison to the prior period.

See "Results of Operations - Regulatory Matters - *Regulatory Proceeding Updates*" above and Note 10 for more information regarding the pension balancing account.

Interest Expense, Net
Interest expense, net highlights include:

In thousands	Three Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	QTD Change	YTD Change
NW Natural	$ 10,459	$ 9,007	$ 30,979	$ 27,052	$ 1,452	$ 3,927
Other NW Holdings interest expense, net	$ 489	$ (1)	828	(1)	490	829
NW Holdings	$ 10,948	$ 9,006	$ 31,807	$ 27,051	$ 1,942	$ 4,756

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Interest expense, net increased $1.9 million and $1.5 million at NW Holdings and NW Natural, respectively, primarily due to an increase of $1.4 million in NGD interest on higher long-term debt balances and a $0.5 million decrease in the debt portion of AFUDC due to the placement of the North Mist expansion project into service in May 2019, partially offset by a decrease of $0.4 million in NGD commercial paper interest expense on lower short-term debt balances.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Interest expense, net increased $4.8 million and $3.9 million at NW Holdings and NW Natural, respectively, primarily due to an increase of $1.7 million in NGD interest on higher long-term debt balances and an increase of $1.5 million in NGD commercial paper interest expense from higher short-term debt balances as well as a $0.8 million decrease in the debt portion of AFUDC due to the placement of the North Mist expansion project into service in May 2019.

Income Tax Expense
Income tax expense highlights include:

In thousands	Three Months Ended September 30, 2019	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2019	Nine Months Ended September 30, 2018	QTD Change	YTD Change
NW Holdings income tax (benefit) expense	$ (4,343)	$ (4,285)	$ 4,957	$ 11,191	$ (58)	$ (6,234)
NW Natural income tax (benefit) expense	$ (4,013)	$ (4,333)	$ 5,820	$ 11,174	$ 320	$ (5,354)

THREE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Income tax benefits increased $0.1 million and decreased $0.3 million at NW Holdings and NW Natural, respectively. Increases in income tax benefits were primarily due to a higher pretax loss in the current period, offset by decreases due to the timing of tax benefits and expenses recognized in association with the return of tax reform benefits to customers. See "Executive Summary - *Deferred TCJA benefits and timing variance*" above.

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Income tax expense decreased $6.2 million and $5.4 million at NW Holdings and NW Natural, respectively. The decrease was primarily related to the income tax implications of the March 2019 OPUC order, including commencement of the return of deferred TCJA benefits to customers and the regulatory pension disallowance, as well as lower pretax income in the current period.

See "Results of Operations - Regulatory Matters - *Regulatory Proceeding Updates*" above, Note 10, and Note 11 for information regarding the application of excess deferred income tax benefits.

Pending sale of Gill Ranch Storage
On June 20, 2018, NWN Gas Storage, a wholly owned subsidiary of NW Holdings, entered into a Purchase and Sale Agreement (the Sale Agreement) that provides for the sale by NWN Gas Storage of all of its membership interests in Gill Ranch. Gill Ranch owns a 75% interest in the natural gas storage facility located near Fresno, California known as the Gill Ranch Gas Storage Facility. PG&E owns the remaining 25% interest in the Gill Ranch Facility.

In the Sale Agreement, NWN Gas Storage makes representations and warranties concerning, among other things, Gill Ranch, the Gill Ranch Facility and Gill Ranch's business and contractual relationships, and agrees to cause Gill Ranch to conduct its business and maintain its properties in the ordinary course, consistent with material agreements and past practice.

The Sale Agreement provides for an initial cash purchase price of $25.0 million (subject to a working capital adjustment), plus potential additional payments to NWN Gas Storage of up to $26.5 million in the aggregate if Gill Ranch achieves certain economic performance levels for the first three full gas storage years (April 1 of one year through March 31 of the following year) occurring after the closing and the remaining portion of the gas storage year during which the closing occurs.

The closing of the transaction is subject to approval by the CPUC, other customary closing conditions and covenants, including the requirement that all of the representations and warranties be true and correct as of the closing date except, as would not, in the case of certain representations and warranties, be reasonably expected to have a material adverse effect on Gill Ranch. The agreement is currently subject to termination by either party if the transaction has not closed by December 20, 2019. The parties are considering an extension of this date in the event CPUC approval is not obtained by that time.

In July 2018, Gill Ranch filed an application with the CPUC for approval of this transaction. On February 14, 2019, the active parties to the CPUC proceeding filed a settlement agreement with the CPUC. One of the parties to the settlement agreement, the CPUC's Office of the Safety Advocate, has filed to withdraw from the settlement and currently opposes approval of the application. On October 31, 2019, the CPUC Administrative Law Judge issued a proposed decision approving the transaction, which must be approved by the CPUC to be effective. A CPUC ruling on the proposed decision is expected in late 2019 or early 2020. We continue to strive to close this transaction.

On January 29, 2019, PG&E filed voluntary petitions for relief under chapter 11 bankruptcy. Although we do not currently anticipate that the PG&E filing will affect the sale of Gill Ranch, we cannot fully predict the course of the bankruptcy proceedings or the impact on the sale and will continue to monitor the situation closely.

The results of Gill Ranch Storage have been determined to be discontinued operations and are presented separately, net of tax, from the results of continuing operations of NW Holdings for all periods presented. See Note 18 for more information on the Sale Agreement and the results of our discontinued operations.

The CPUC regulates Gill Ranch under a market-based rate model which allows for the price of storage services to be set by the marketplace. The CPUC also regulates the issuance of securities, system of accounts, and regulates intrastate storage services. The California Department of Oil Gas and Geothermal Resources (DOGGR) regulations for gas storage wells were finalized in June 2018, and the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) proposed new federal regulations for underground natural gas storage facilities, which are expected to be finalized during 2019 and increase costs for all storage providers. NW Holdings will continue to monitor and assess the new regulations until the sale is complete.

Short-term liquidity for Gill Ranch is supported by cash balances, internal cash flow from operations, equity contributions from its parent company, and, if necessary, additional external financing.

FINANCIAL CONDITION

Capital Structure

One of our long-term goals is to maintain a strong consolidated capital structure with a long-term target utility capital structure of 50% common stock and 50% long-term debt at NW Natural. When additional capital is required, debt or equity securities are issued depending on both the target capital structure and market conditions. These sources of capital are also used to fund long-term debt retirements and short-term commercial paper maturities. See "*Liquidity and Capital Resources"* below and Note 9. Achieving the target capital structure and maintaining sufficient liquidity to meet operating requirements are necessary to maintain attractive credit ratings and provide access to capital markets at reasonable costs.

NW Holdings' consolidated capital structure was as follows:

	September 30,		December 31,
	2019	2018	2018
Common stock equity	46.6%	44.8%	44.4%
Long-term debt	44.5	44.0	41.1
Short-term debt, including current maturities of long-term debt	8.9	11.2	14.5
Total	100.0%	100.0%	100.0%

NW Natural's consolidated capital structure was as follows:

	September 30,		December 31,
	2019	2018	2018
Common stock equity	46.8%	44.8%	42.9%
Long-term debt	45.0	44.0	42.2
Short-term debt, including current maturities of long-term debt	8.2	11.2	14.9
Total	100.0%	100.0%	100.0%

Liquidity and Capital Resources

At September 30, 2019 and 2018, NW Holdings had approximately $10.5 million and $30.0 million, and NW Natural had approximately $6.3 million and $8.9 million of cash and cash equivalents, respectively. In order to maintain sufficient liquidity during periods when capital markets are volatile, NW Holdings and NW Natural may elect to maintain higher cash balances and add short-term borrowing capacity. NW Holdings and NW Natural may also pre-fund their respective capital expenditures when long-term fixed rate environments are attractive.

NW Holdings

For NW Holdings, short-term liquidity is primarily provided by cash balances, dividends from its operating subsidiaries, in particular NW Natural, available cash from a multi-year credit facility, and short-term credit facilities. NW Holdings also has a universal shelf registration statement filed with the SEC for the issuance of debt and equity securities. NW Holdings' long-term debt, if any, and equity issuances are primarily used to provide equity contributions to NW Holdings' operating subsidiaries for operating and capital expenditures and other corporate purposes. NW Holdings' issuance of securities is not subject to regulation by state public utility commissions, but the dividends from NW Natural to NW Holdings are subject to regulatory ring-fencing provisions.

As part of the ring-fencing conditions agreed upon with the OPUC and WUTC in connection with the holding company reorganization, NW Natural may not pay dividends or make distributions to NW Holdings if NW Natural's credit ratings and common equity ratio fall below specified levels. If NW Natural's long term secured credit ratings are below A- for S&P and A3 for Moody's, dividends may be issued so long as NW Natural's common equity ratio is 45% or more. If NW Natural's long term secured credit ratings are below BBB for S&P and Baa2 for Moody's, dividends may be issued so long as NW Natural's common equity ratio is 46% or more. Dividends may not be issued if NW Natural's long-term secured credit ratings are BB+ or below for S&P or Ba1 or below for Moody's, or if NW Natural's common equity ratio is below 44%. In each case, common equity ratios are determined based on a preceding or projected 13-month average. In addition, there are certain OPUC notice requirements for dividends in excess of 5% of NW Natural's retained earnings.

Additionally, if NW Natural's common equity (excluding goodwill and equity associated with non-regulated assets), on a preceding or projected 13-month average basis, is less than 46% of NW Natural's capital structure (common equity and long-term debt excluding imputed debt or debt-like lease obligations), NW Natural is required to notify the OPUC, and if the common equity ratio falls below 44%, file a plan with the OPUC to restore its equity ratio to 44%. This condition is designed to ensure NW Natural continues to be adequately capitalized under the holding company structure. Under the WUTC order, the average common equity ratio must not exceed 56%.

At September 30, 2019, NW Natural satisfied the ring-fencing provisions described above.

NW HOLDINGS DIVIDEND POLICY. Quarterly dividends have been paid on common stock each year since NW Holdings' predecessor's stock was first issued to the public in 1951. Annual common stock dividend payments per share, adjusted for stock splits, have increased each year since 1956. The declarations and amount of future dividends to shareholders will depend upon earnings, cash flows, financial condition, NW Natural's ability to pay dividends to NW Holdings and other factors. The amount and timing of dividends payable on common stock is at the sole discretion of the NW Holdings' Board of Directors.

Based on several factors, including current cash reserves, committed credit facilities, its ability to receive dividends from its operating subsidiaries, in particular NW Natural, and an expected ability to issue long-term debt and equity securities in the capital markets, NW Holdings believes its liquidity is sufficient to meet anticipated near-term cash requirements, including all contractual obligations, investing, and financing activities as discussed in "*Contractual Obligations*" and "*Cash Flows*" below.

NW Natural

For the NGD business segment, short-term borrowing requirements typically peak during colder winter months when the NGD business borrows money to cover the lag between natural gas purchases and bill collections from customers. Short-term liquidity for the NGD business is primarily provided by cash balances, internal cash flow from operations, proceeds from the sale of commercial paper notes, as well as available cash from multi-year credit facilities, short-term credit facilities, company-owned life insurance policies, the sale of long-term debt, and equity contributions from NW Holdings. NW Natural's long-term debt and contributions from NW Holdings are primarily used to finance NGD capital expenditures, refinance maturing debt, and provide temporary funding for other general corporate purposes of the NGD business.

Based on NW Natural's current debt ratings (see "*Credit Ratings"* below), it has been able to issue commercial paper and long-term debt at attractive rates and has not needed to borrow or issue letters of credit from its back-up credit facility. In the event NW Natural is not able to issue new debt due to adverse market conditions or other reasons, NW Natural expects that near-term liquidity needs can be met using internal cash flows, issuing commercial paper, receiving equity contributions from NW Holdings, or, for the NGD segment, drawing upon a committed credit facility. NW Natural also has a universal shelf registration statement filed with the SEC for the issuance of secured and unsecured debt securities.

In the event senior unsecured long-term debt ratings are downgraded, or outstanding derivative positions exceed a certain credit threshold, counterparties under derivative contracts could require NW Natural to post cash, a letter of credit, or other forms of collateral, which could expose NW Natural to additional cash requirements and may trigger increases in short-term borrowings while in a net loss position. NW Natural was not required to post collateral at September 30, 2019. If the credit risk-related contingent features underlying these contracts were triggered on September 30, 2019, assuming NW Natural's long-term debt ratings dropped to non-investment grade levels, it could have been required to post $1.5 million in collateral with counterparties. See "*Credit Ratings*" below and Note 16.

Other items that may have a significant impact on NW Natural's liquidity and capital resources include pension contribution requirements and environmental expenditures. For additional information, see Part II, Item 7 "*Financial Condition*" in the 2018 Form 10-K.

SHORT-TERM DEBT. The primary source of short-term liquidity for NW Holdings is cash balances, dividends from its operating subsidiaries, in particular NW Natural, available cash from a multi-year credit facility, and short-term credit facilities it may enter into from time to time.

The primary source of short-term liquidity for NW Natural is from the sale of commercial paper and bank loans. NW Holdings and NW Natural have separate bank facilities, and NW Natural has a commercial paper program. In addition to issuing commercial paper or bank loans to meet working capital requirements, including seasonal requirements to finance gas purchases and accounts receivable, short-term debt may also be used to temporarily fund capital requirements. For NW Natural, commercial paper and bank loans are periodically refinanced through the sale of long-term debt or equity contributions from NW Holdings. Commercial paper, when outstanding, is sold through two commercial banks under an issuing and paying agency agreement and is supported by one or more unsecured revolving credit facilities. See “*Credit Agreements*” below.

At September 30, 2019 and 2018, NW Holdings had short-term debt outstanding of $65.6 million and $100.5 million, respectively. At September 30, 2019 and 2018, NW Natural had short-term debt outstanding of $45.5 million and $100.5 million, respectively. The weighted average interest rate on short-term debt outstanding at September 30, 2019 was 3.4% and 2.1% at NW Holdings and NW Natural, respectively.

Credit Agreements

NW Holdings

NW Holdings has a $100.0 million credit agreement, with a feature that allows it to request increases in the total commitment amount up to a maximum of $150.0 million. The maturity date of the agreement is October 2, 2023.

All lenders under the agreement are major financial institutions with committed balances and investment grade credit ratings as of September 30, 2019 as follows:

In millions

Lender rating, by category	Loan Commitment
AA/Aa	$ 100
A/A1	—
Total	$ 100

Based on credit market conditions, it is possible one or more lending commitments could be unavailable to NW Holdings if the lender defaulted due to lack of funds or insolvency; however, NW Holdings does not believe this risk to be imminent due to the lenders' strong investment-grade credit ratings.

The credit agreement permits the issuance of letters of credit in an aggregate amount of up to $40.0 million. The principal amount of borrowings under the credit agreement is due and payable on the maturity date. The credit agreement requires NW Holdings to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Holdings was in compliance with this covenant at September 30, 2019, with a consolidated indebtedness to total capitalization ratio of 53.4%.

The agreement also requires NW Holdings to maintain debt ratings (which are defined by a formula using NW Natural's credit ratings in the event NW Holdings does not have a credit rating) with Standard & Poor's (S&P) and Moody's Investors Service, Inc. (Moody's) and notify the lenders of any change in its senior unsecured debt ratings or senior secured debt ratings, as applicable, by such rating agencies. A change in NW Holdings' debt ratings by S&P or Moody's is not an event of default, nor is the maintenance of a specific minimum level of debt rating a condition of drawing upon the credit agreement. Rather, interest rates on any loans outstanding under the credit agreements are tied to debt ratings and therefore, a change in the debt rating would increase or decrease the cost of any loans under the credit agreements when ratings are changed. NW Holdings does not currently maintain ratings with S&P or Moody's.

NW Natural
NW Natural has a $300.0 million credit agreement, with a feature that allows it to request increases in the total commitment amount up to a maximum of $450.0 million. The maturity date of the agreement is October 2, 2023.

All lenders under the agreement are major financial institutions with committed balances and investment grade credit ratings as of September 30, 2019 as follows:

In millions

Lender rating, by category	Loan Commitment	
AA/Aa	$	300
A/A1		—
Total	$	300

Based on credit market conditions, it is possible one or more lending commitments could be unavailable to NW Natural if the lender defaulted due to lack of funds or insolvency; however, NW Natural does not believe this risk to be imminent due to the lenders' strong investment-grade credit ratings.

The NW Natural credit agreement permits the issuance of letters of credit in an aggregate amount of up to $60.0 million. The principal amount of borrowings under the credit agreement is due and payable on the maturity date. There were no outstanding balances under this credit agreement or the prior credit agreement at September 30, 2019 or 2018. The credit agreement requires NW Natural to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Natural was in compliance with this covenant at September 30, 2019 and 2018, with consolidated indebtedness to total capitalization ratios of 53.2% and 55.2%, respectively.

The agreement also requires NW Natural to maintain credit ratings with S&P and Moody's and notify the lenders of any change in NW Natural's senior unsecured debt ratings or senior secured debt ratings, as applicable, by such rating agencies. A change in NW Natural's debt ratings by S&P or Moody's is not an event of default, nor is the maintenance of a specific minimum level of debt rating a condition of drawing upon the credit agreement. Rather, interest rates on any loans outstanding under the agreement are tied to debt ratings and therefore, a change in the debt rating would increase or decrease the cost of any loans under the credit agreement when ratings are changed. See "*Credit Ratings"* below.

CREDIT RATINGS. NW Holdings does not currently maintain ratings with S&P or Moody's. NW Natural's credit ratings are a factor of liquidity, potentially affecting access to the capital markets including the commercial paper market. NW Natural's credit ratings also have an impact on the cost of funds and the need to post collateral under derivative contracts. The following table summarizes NW Natural's current credit ratings:

	S&P	Moody's
Commercial paper (short-term debt)	A-1	P-2
Senior secured (long-term debt)	AA-	A2
Senior unsecured (long-term debt)	n/a	Baa1
Corporate credit rating	A+	n/a
Ratings outlook	Stable	Stable

In May 2019, Moody's revised NW Natural's ratings outlook from negative to stable. In addition, the senior secured (long-term debt) rating changed from A1 to A2 and the senior unsecured (long-term debt) rating was revised from A3 to Baa1.

The above credit ratings and ratings outlook are dependent upon a number of factors, both qualitative and quantitative, and are subject to change at any time. The disclosure of or reference to these credit ratings is not a recommendation to buy, sell or hold NW Holdings or NW Natural securities. Each rating should be evaluated independently of any other rating.

As part of the ring-fencing conditions agreed upon with the OPUC and WUTC in connection with the holding company reorganization, NW Holdings and NW Natural are required to maintain separate credit ratings, long-term debt ratings, and preferred stock ratings, if any.

LONG-TERM DEBT. In June 2019, NW Natural Water, a wholly-owned subsidiary of NW Holdings, entered into a new two-year term loan agreement for $35.0 million. The loan carried an interest rate of 2.65% at September 30, 2019, which is based upon the three-month LIBOR rate. The loan is guaranteed by NW Holdings and requires NW Holdings to maintain a consolidated indebtedness to total capitalization ratio of 70% or less. Failure to comply with this covenant would entitle the lenders to terminate their lending commitments and accelerate the maturity of all amounts outstanding. NW Holdings was in compliance with this covenant at September 30, 2019, with a consolidated indebtedness to total capitalization ratio of 53.4%.

In June 2019, NW Natural issued $50 million and $90 million of first mortgage bonds (FMBs) with interest rates of 3.141% and 3.869% and maturity dates of June 2029 and June 2049, respectively. In September 2019, NW Natural retired $10.0 million of FMBs with an interest rate of 8.310%. No other long-term debt was retired or issued during the nine months ended September 30, 2019. Over the next twelve months, $20.0 million of FMBs with an interest rate rate of 7.630% will mature in December 2019 and $75.0 million of FMBs with an interest rate of 5.370% will mature in February 2020.

See Part II, Item 7, "Financial Condition—*Contractual Obligations*" in the 2018 Form 10-K for long-term debt maturing over the next five years.

BANKRUPTCY RING-FENCING RESTRICTIONS. As part of the ring-fencing conditions agreed upon with the OPUC and WUTC in connection with the holding company reorganization, NW Natural is required to have one director who is independent from NW Natural management and from NW Holdings and to issue one share of NW Natural preferred stock to an independent third party. NW Natural was in compliance with both of these ring-fencing provisions as of September 30, 2019. NW Natural may file a voluntary petition for bankruptcy only if approved unanimously by the Board of Directors of NW Natural, including the independent director, and by the holder of the preferred share.

Cash Flows

Operating Activities

Changes in operating cash flows are primarily affected by net income or loss, changes in working capital requirements, and other cash and non-cash adjustments to operating results.

Operating activity highlights include:

	Nine Months Ended September 30,		
In thousands	2019	2018	YTD Change
NW Holdings cash provided by operating activities	$ 155,291	$ 158,529	$ (3,238)
NW Natural cash provided by operating activities	$ 154,464	$ 157,935	$ (3,471)

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. The significant factors contributing to the $3.2 million and $3.5 million decrease in cash flows provided by operating activities at NW Holdings and NW Natural, respectively, were as follows:

- a decrease of $49.5 million in cash flow benefits from changes in deferred gas cost balances primarily due to higher gas costs than in the PGA in 2019 compared to lower gas costs than in the PGA in the prior year; partially offset by
- an increase of $28.1 million due to income tax refunds received of $6.1 million in the current period compared to payments of $22.0 million in the prior period;
- an increase of $8.2 million from collections from customers to be returned through the next year's PGA as part of NW Natural's decoupling mechanism;
- an increase of approximately $7.3 million in cash receipts from collections of both current and deferred pension expenses as a result of NW Natural's Oregon rate case; and
- an increase of $3.9 million from lower contributions to NW Natural's qualified defined benefit pension plan.

During the nine months ended September 30, 2019, NW Natural contributed $7.8 million to the NGD segment's qualified defined benefit pension plan, compared to $11.7 million for the same period in 2018. The amount and timing of future contributions will depend on market interest rates and investment returns on the plans' assets. For additional information, see Note 10.

NW Holdings and NW Natural have lease and purchase commitments relating to their operating activities that are financed with cash flows from operations. For additional information, see Part II, Item 7 "Financial Condition—*Contractual Obligations"* and Note 16 in the 2018 Form 10-K.

Investing Activities
Investing activity highlights include:

In thousands	Nine Months Ended September 30, 2019	2018	YTD Change
NW Holdings cash used in investing activities	$ (225,290)	$ (161,075)	$ (64,215)
NW Holdings capital expenditures supporting continuing operations	(152,993)	(158,795)	5,802
NW Natural cash used in investing activities	$ (167,375)	$ (181,198)	$ 13,823
NW Natural capital expenditures supporting continuing operations	(151,915)	(158,795)	6,880

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Cash used in investing activities increased $64.2 million at NW Holdings and decreased $13.8 million at NW Natural. The decrease at NW Natural was primarily due to lower expenditures related to the North Mist expansion project in 2019. The increase at NW Holdings was primarily due to $56.2 million in expenditures for acquisitions, net of cash acquired.

NW Holdings' largest subsidiary, NW Natural, expects to make a significant level of investments in its NGD segment in 2019 and through 2023. Over the five-year period from 2019 to 2023, the NGD segment is expected to invest $820 million to $910 million in capital expenditures to support system reliability, customer growth, and operate effective technology for the business. In 2019, NW Natural anticipates several significant projects for the NGD segment, including completing the replacement of end of life equipment at the Mist gas storage facility, and renovating several resource facilities across NW Natural's service territory. Remaining projects in 2019 include leasehold improvements and technology for the new headquarters in Portland, Oregon and other system reliability and improvement projects, mainly around Mist.

NW Holdings' wholly-owned water subsidiaries expect to invest in their facilities to support growth and upgrade their systems with $30 million to $40 million expected to be invested from 2019 to 2023. NW Holdings expects an immaterial amount of non-NGD capital investments for Gill Ranch and other activities in 2019 and through 2023.

Investments in our infrastructure during and after 2019 beyond the amounts provided below will depend largely on additional regulations, growth, and expansion opportunities.

For 2019, capital expenditures are estimated, on an accrual basis, to be as follows:

In millions	One-Year Outlook 2019 Low	High
NGD		
Core capital expenditures	$ 150	$ 165
Significant projects:		
Growth & reliability	15	25
Facilities & technology	42	57
North Mist expansion	18	18
Total projects	75	100
Total NGD	225	265
Other	5	5
Total	$ 230	$ 270

Required funds for the investments are expected to be internally generated and/or financed with long-term debt or equity, as appropriate.

Financing Activities

Financing activity highlights include:

In thousands	Nine Months Ended September 30, 2019	2018	YTD Change
NW Holdings cash provided by financing activities	$ 67,888	$ 29,039	$ 38,849
NW Holdings proceeds from common stock issued	93,182	—	93,182
NW Holdings change in short-term debt	(152,040)	46,300	(198,340)
NW Holdings change in long-term debt	165,000	28,000	137,000
NW Natural cash provided by financing activities	$ 11,238	$ 29,039	$ (17,801)
NW Natural capital contribution from parent	93,182	—	93,182
NW Natural change in short-term debt	(172,000)	46,300	(218,300)
NW Natural change in long-term debt	130,000	28,000	102,000

NINE MONTHS ENDED SEPTEMBER 30, 2019 COMPARED TO SEPTEMBER 30, 2018. Cash provided by financing activities increased $38.8 million and decreased $17.8 million at NW Holdings and NW Natural, respectively.

The decrease in cash provided by financing activities at NW Natural was primarily driven by $218.3 million in higher repayments of short-term debt compared to the prior period, partially offset by net issuances of $130.0 million in long term debt compared to net issuances of $28.0 million in the prior period and a capital contribution from NW Holdings to NW Natural of $93.2 million.

The increase at NW Holdings was primarily due the issuance of $35.0 million of debt at NW Natural Water, proceeds of $93.2 million from the June 2019 issuance of NW Holdings common stock, and the long-term debt activity at NW Natural described above. These increases were partially offset by higher repayments of short-term debt of $198.3 million, which primarily consists of higher repayments of $218.3 million of short-term debt at NW Natural, partially offset by increases in short-term debt at the holding company.

Contingent Liabilities

Loss contingencies are recorded as liabilities when it is probable that a liability has been incurred and the amount of the loss is reasonably estimable in accordance with accounting standards for contingencies. See "*Application of Critical Accounting Policies and Estimates*" in the 2018 Form 10-K. At September 30, 2019, NW Natural's total estimated liability related to environmental sites is $119.1 million. See "Results of Operations—Regulatory Matters—Rate Mechanisms—*Environmental Costs*" in the 2018 Form 10-K and Note 17.

APPLICATION OF CRITICAL ACCOUNTING POLICIES AND ESTIMATES

In preparing financial statements in accordance with U.S. GAAP, management exercises judgment in the selection and application of accounting principles, including making estimates and assumptions that affect reported amounts of assets, liabilities, revenues, expenses, and related disclosures in the financial statements. Management considers critical accounting policies to be those which are most important to the representation of financial condition and results of operations and which require management's most difficult and subjective or complex judgments, including accounting estimates that could result in materially different amounts if reported under different conditions or if they used different assumptions. Our most critical estimates and judgments for both NW Holdings and NW Natural include accounting for:

- regulatory accounting;
- revenue recognition;
- derivative instruments and hedging activities;
- pensions and postretirement benefits;
- income taxes;
- environmental contingencies; and
- impairment of long-lived assets and goodwill.

There have been no material changes to the information provided in the 2018 Form 10-K with respect to the application of critical accounting policies and estimates. See Part II, Item 7, "*Application of Critical Accounting Policies and Estimates,*" in the 2018 Form 10-K.

Management has discussed its current estimates and judgments used in the application of critical accounting policies with the Audit Committees of the Boards of NW Holdings and NW Natural. Within the context of critical accounting policies and estimates, management is not aware of any reasonably likely events or circumstances that would result in materially different amounts being reported. For a description of recent accounting pronouncements that could have an impact on financial condition, results of operations or cash flows, see Note 2.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

NW Holdings and NW Natural are exposed to various forms of market risk including commodity supply risk, commodity price risk, interest rate risk, foreign currency risk, credit risk and weather risk. This section describes NW Holdings' and NW Natural's exposure to these risks, as applicable. Management monitors and manages these financial exposures as an integral part of NW Holdings' and NW Natural's overall risk management program. No material changes have occurred related to disclosures about market risk for the nine months ended September 30, 2019. For additional information, see Part II, Item 1A, "*Risk Factors*" in this report and Part II, Item 7A, "*Quantitative and Qualitative Disclosures about Market Risk*" in the 2018 Form 10-K.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

NW Holdings and NW Natural management, under the supervision and with the participation of the Chief Executive Officer and Chief Financial Officer, completed an evaluation of the effectiveness of the design and operation of disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the Exchange Act)). Based upon this evaluation, the Chief Executive Officer and Chief Financial Officer of each registrant have concluded that, as of the end of the period covered by this report, disclosure controls and procedures were effective to ensure that information required to be disclosed by each such registrant and included in reports filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission (SEC) rules and forms and that such information is accumulated and communicated to management of each registrant, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

(b) Changes in Internal Control Over Financial Reporting

NW Holdings and NW Natural management are responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f).

There have been no changes in NW Natural's or NW Holdings' internal control over financial reporting that occurred during the quarter ended September 30, 2019 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting for NW Holdings and NW Natural. The statements contained in Exhibit 31.1, Exhibit 31.2, Exhibit 31.3, and Exhibit 31.4 should be considered in light of, and read together with, the information set forth in this Item 4(b).

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Other than the proceedings disclosed in Note 17 and those proceedings disclosed and incorporated by reference in Part I, Item 3, "*Legal Proceedings*" in the 2018 Form 10-K, we have only routine nonmaterial litigation that occurs in the ordinary course of our business.

ITEM 1A. RISK FACTORS

There were no material changes from the risk factors discussed in Part I, Item 1A, "*Risk Factors*" in the 2018 Form 10-K. In addition to the other information set forth in this report, you should carefully consider those risk factors, which could materially affect our business, financial condition, or results of operations.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

The following table provides information about purchases of NW Holdings' equity securities that are registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended, during the quarter ended September 30, 2019:

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased[1]	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs[2]	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs[2]
Balance forward			2,124,528	$ 16,732,648
07/01/19-07/31/19	—	$ —	—	—
08/01/19-08/31/19	591	70.60	—	—
09/01/19-09/30/19	—	—	—	—
Total	591	70.60	2,124,528	$ 16,732,648

(1) During the quarter ended September 30, 2019, no shares of common stock were purchased on the open market to meet the requirements of NW Holdings' Dividend Reinvestment and Direct Stock Purchase Plan. However, 591 shares of NW Holdings common stock were purchased on the open market to meet the requirements of share-based compensation programs. During the quarter ended September 30, 2019, no shares of NW Holdings common stock were accepted as payment for stock option exercises pursuant to the NW Natural Restated Stock Option Plan.

(2) During the quarter ended September 30, 2019, no shares of NW Holdings common stock were repurchased pursuant to the Board-Approved share repurchase program. In May 2019, we received NW Holdings Board Approval to extend the repurchase program through May 2022. For more information on this program, refer to Note 5 in the 2018 Form 10-K, and the Form 8-K filed by NW Holdings and NW Natural on May 30, 2019.

ITEM 6. EXHIBITS

See the Exhibit Index below, which is incorporated by reference herein.

NORTHWEST NATURAL GAS COMPANY
NORTHWEST NATURAL HOLDING COMPANY

Exhibit Index to Quarterly Report on Form 10-Q
For the Quarter Ended September 30, 2019

Exhibit Index

Exhibit Number	Document
31.1	Certification of Principal Executive Officer of Northwest Natural Gas Company Pursuant to Rule 13a-14(a)/15-d-14(a), Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Principal Financial Officer of Northwest Natural Gas Company Pursuant to Rule 13a-14(a)/15-d-14(a), Section 302 of the Sarbanes-Oxley Act of 2002.
31.3	Certification of Principal Executive Officer of Northwest Natural Holding Company Pursuant to Rule 13a-14(a)/15-d-14(a), Section 302 of the Sarbanes-Oxley Act of 2002.
31.4	Certification of Principal Financial Officer of Northwest Natural Holding Company Pursuant to Rule 13a-14(a)/15-d-14(a), Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Principal Executive Officer and Principal Financial Officer of Northwest Natural Gas Company Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Principal Executive Officer and Principal Financial Officer of Northwest Natural Holding Company Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.	The following materials formatted in Inline Extensible Business Reporting Language (Inline XBRL): (i) Consolidated Statements of Income; (ii) Consolidated Balance Sheets; (iii) Consolidated Statements of Cash Flows; and (iv) Related notes. The instance document does not appear in the interactive data file because XBRL tags are embedded within the Inline XBRL document.
104.	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, formatted in Inline XBRL.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, each Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized. The signature for each undersigned company shall be deemed to relate only to matters having reference to such company and its subsidiaries.

NORTHWEST NATURAL GAS COMPANY

(Registrant)

Dated: November 5, 2019

/s/ Brody J. Wilson

Brody J. Wilson

Principal Accounting Officer
Vice President, Treasurer, Chief Accounting Officer and Controller

NORTHWEST NATURAL HOLDING COMPANY

(Registrant)

Dated: November 5, 2019

/s/ Brody J. Wilson

Brody J. Wilson

Principal Accounting Officer
Vice President, Treasurer, Chief Accounting Officer and Controller